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Assessing the Structure and Mix of Future Active and Reserve Forces: Effectiveness of Total Force Policy During the Persian Gulf Conflict

Marygail Brauner, Harry Thie, Roger Brown

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ASSESSING THE STRUCTURE AND MIX OF FUTURE ACTIVE AND RESERVE FORCES

A National Defense Research Institute Study

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Preface

The National Defense Authorization Act for Fiscal Years 1992 and 1993 required that the Secretary of Defense submit to Congress "an assessment of a wide range of alternatives relating to the structure and mix of active and reserve forces appropriate for carrying out assigned missions in the mid- to late-1990s." The act specified that the first part of the study be conducted by a federally funded research and development center (FFRDC) that is independent of the military departments. RAND's National Defense Research Institute (NDRI) was selected to conduct the assessment. NDRI is an FFRDC sponsored by the Office of the Secretary of Defense (OSD) and the Joint Staff.

As required by Section 402 of the act, the objective of the NDRI effort is to assess how alternative force mixes and structures would affect the U.S. military forces' ability to meet national military requirements under projected budget constraints. Congress asked that the Secretary of Defense and the Chairman of the Joint Chiefs of Staff then "determine, on the basis of the evaluation, the mix or mixes of reserve and active forces included in the independent study that are considered acceptable to carry out expected military missions."

Management of the Effort

The figure below shows how NDRI managed the study.
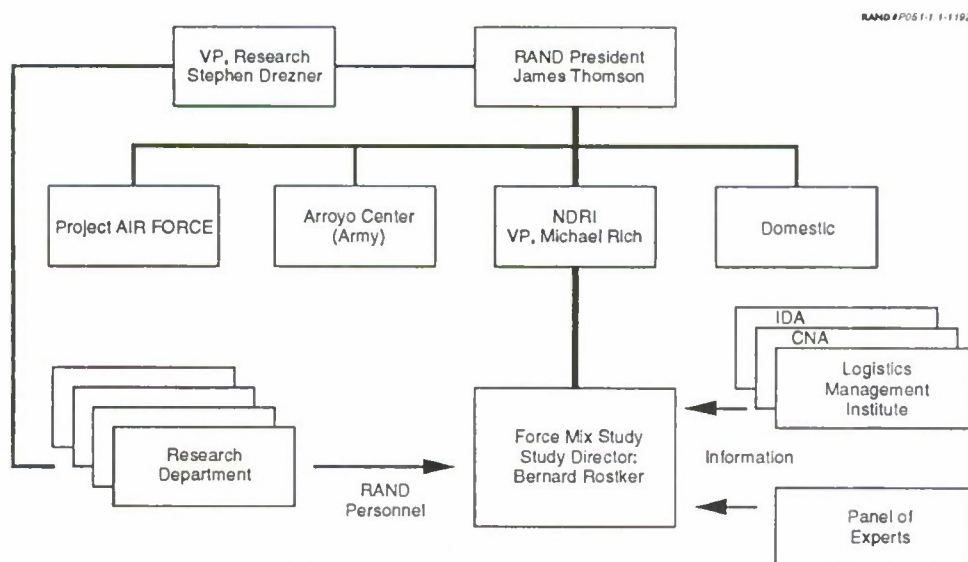
Managing the Force Mix Study

RAND's National Defense Research Institute

RAND is a private, nonprofit institution engaged in research and analysis of matters affecting national security and the public welfare. It operates three federally funded research and development centers in defense research. They provide ongoing technical and policy analysis to the Department of Defense (DoD), under special oversight arrangements. The oldest service-sponsored FFRDC is Project AIR FORCE, which was created in 1946. The Arroyo Center, the Army's FFRDC for studies and analysis, has been at RAND since 1984. NDRI is RAND's third FFRDC, created in 1984. Members of the RAND research staff are housed in five research departments. The force mix study director reported directly to the Director of the NDRI, a RAND Vice President. Additional oversight was provided by the Chairman of RAND's Research Operations Group, also a RAND Vice President.

The staff of the NDRI study team was drawn from a number of research departments at RAND. In addition, several concurrent studies were under way in the Arroyo Center where staff adjusted their schedules to provide important analysis of several critical issues, particularly an assessment of post-mobilization training required by roundout brigades. In addition, with the approval of the Army, Arroyo Center staff shared with the NDRI study team a number of computer models and data bases. Project AIR FORCE also shared the findings from a recently completed base force analysis.

Support from Other FFRDCs

NDRI was supported in this study by other, non-RAND, FFRDCs: the Logistics Management Institute, the Center for Naval Analyses, and the Institute for Defense Analyses.

The **Logistics Management Institute** (LMI), like NDRI, is an FFRDC chartered to support the Office of the Secretary of Defense. Under separate contract with OSD, LMI was fully engaged with the NDRI study team in the design of alternative Army force structures.

The **Center for Naval Analyses** (CNA) also was under separate contract with the Office of the Secretary of Defense to perform a parallel analysis for the Navy and Marine Corps forces. CNA developed the specific Navy and Marine Corps alternatives presented in the final report.

The **Institute for Defense Analyses** (IDA) is also an FFRDC that supports the Office of the Secretary of Defense and that had a separate contract with OSD

to support this study effort. IDA assessed the feasibility of the Unit Cohesion Model, identified specific changes that would be needed to implement it, and assessed how simulators might be used in the future to enhance reserve component training.

Panel of Experts

Section 402 of the Authorization Act required that "[t]he study group shall be assisted by a panel of experts who, by reason of their background experience, and knowledge, are particularly qualified in the areas covered by the study." The panel of experts was selected by NDRI in consultation with the sponsoring officials in the Office of the Secretary of Defense. The following individuals served on the panel:

- Admiral Harry Train, USN (Ret),
- General Maxwell Thurman, USA (Ret),
- General Robert Bazley, USAF (Ret),
- General Joseph Went, USMC (Ret),
- Major General L.H. Ginn, USAR (Ret), and
- Major General Greg Barlow, ARNG, The Adjutant General of the State of Washington.

Structure of the Study

For the assessment, the congressional mandate specified a number of key issues in three broad areas: evaluating past policies and practices related to the mix and structure of active and reserve forces; defining alternative mixes and structures; and evaluating those alternatives.

In particular, Congress asked that the overall study start with two background studies, one of which was to be an assessment of the effectiveness of Total Force Policy during the Persian Gulf Conflict. This document is the result of that assessment, which focused on the availability and readiness of the Army and Air Force Reserve Components. The Center for Naval Analyses was chartered to perform a parallel assessment of Naval and Marine Corps Reserve availability and readiness in the Persian Gulf Conflict.

The findings and conclusions of the larger study are reported in National Defense Research Institute, *Assessing the Structure and Mix of Future Active and*

Reserve Forces: Final Report to the Secretary of Defense, RAND, MR-140-OSD, 1992. Other documents from the study are listed below:

Leslie Lewis, C. Robert Roll, and John D. Mayer, *Assessing the Structure and Mix of Future Active and Reserve Forces: Assessment of Policies and Practices for Implementing the Total Force Policy*, RAND, MR-133-OSD, 1992;

Adele R. Palmer, James H. Bigelow, Joseph G. Bolten, Jennifer H. Kawata, H. Garrison Massey, Robert L. Petruschell, Michael G. Shanley, *Assessing the Structure and Mix of Future Active and Reserve Forces: Cost Estimation Methodology*, RAND, MR-134-OSD, 1992.

National Defense Research Institute, *Assessing the Structure and Mix of Future Active and Reserve Forces: Appendixes* (U), RAND, MR-140/1-OSD, December 1992 (SECRET);

Colin O. Halvorson and Norman T. O'Meara, *Force Structure Design Methodology*, Logistics Management Institute, forthcoming;

H. Dwight Lyons, Jr., William H. Sims, and John D. Goetke, *USMC Active and Reserve Force Structure and Mix Study*, Vols. 1–5, Center for Naval Analyses, Alexandria, Virginia, 1992;

John D. Mayer, James M. Jondrow, John V. Hall, Burnham C. McCaffree, and Ronald Rost, *Navy Active and Reserve Force Structure and Mix Study*, Center for Naval Analyses, Alexandria, Virginia, 1992;

John Tillson, Stan Horowitz, Merle Roberson, and Steven L. Canby, *Alternative Approaches to Organizing, Training, and Assessing Army and Marine Corps Units*, Institute for Defense Analyses, P-2791, December 1992.

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Introduction

The Persian Gulf Conflict provided the first major test of Total Force Policy. It was

- The first large scale call-up and use of reserve forces since the Korean War;

- The first major conflict under the Department of Defense's (DoD) Total Force Policy; and

- The first call-up using the new authority to access reserves provided by the Congress in 1976.

Consequently, Operation Desert Shield/Storm (ODS/S) provides unique empirical data about calling up, mobilizing, and deploying the reserve military forces that were the products of Total Force Policy.

Our approach in evaluating the effectiveness of Total Force Policy in the Persian Gulf Conflict was to focus on the availability and readiness of the reserve components in ODS/S. This focus is consistent with a statement of intent made by the Assistant Secretary of Defense (Force Management and Personnel):

> We plan to support military contingencies with Guard and Reserve *units* and *manpower* when they can be *available* and *ready* within planned deployment schedules[1] [emphasis added].

To evaluate the availability and readiness of the reserve component, we used past studies of Total Force Policy, histories and commentaries about reserve forces, the congressional record, and annual reports of the Secretary of Defense and of the Reserve Forces Policy Board. Information and data about the reserve components in the Persian Gulf Conflict came from the numerous

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[1]Assistant Secretary of Defense (Force Management and Personnel), cited in National Defense Authorization Act for Fiscal Years 1992 and 1993, Report 102-114, U.S. Senate Committee on Armed Services, p. 202.

after-action reports and lessons-learned commentaries prepared by the DoD, the military services, Congress, and such organizations as the General Accounting Office, the Congressional Budget Office, and the Congressional Research Service. We drew on the first-hand experiences of various RAND staff members conducting research for their respective service sponsors within RAND's Project AIR FORCE and Arroyo Center on the call-up; mobilization; and deployment of forces at headquarters, at mobilization stations, at the National Training Center, and in Southwest Asia (SWA). We also conducted our own interviews with people who were in strategic positions to observe the working of the Total Force Policy during the Persian Gulf Conflict.

Background

Congress authorized the president to call reserve units for operational missions in limited numbers and for limited periods in Title 10 U.S.C., Section 673b. Prior to this Section 673b authority in 1976, the president had to declare a national emergency for mobilization in order to gain access to reserve units. Having a new mechanism enabled substantial military capability, especially support, to be placed in the reserves under Total Force Policy. The new authority for making reserves available better accommodated international and domestic political needs while the older authorities for partial or full mobilization better accommodated the military and its planning processes by making more units and individuals available and for longer periods. The new authority was perceived as useful to the military in certain circumstances but, unless it was only a step to a larger mobilization, meant that the contingency would need to be of short duration and limited in size.

A contingency of the type fought in ODS/S was not the most demanding one for which the military planned. The U.S. force structure available to the president in the summer of 1990 had been built, trained, and equipped to face the Soviet Union in a global conflict. Military planning for use of reserves in such a global conflict directly influenced expectations by reserves for mobilization and deployment.

When the Total Force Policy was first formulated, the Selected Reserve end-strength was 28 percent of the active and reserve component end-strength. By the time of the Persian Gulf Conflict, it was 36 percent overall and 55 percent in the Army. The 1980s decade of investment in active and reserve component forces had a pay-off in a very robust, well-trained, and modern military structure. In 1990, there were over 2,000,000 active duty people and 1,100,000 selected reservists. Conventional forces were sized and equipped

to fight with an aim of being able to win quickly and decisively. A priority throughout the 1980s was to maintain high levels of readiness supported by operating tempos at levels sufficient to provide challenging training. The Total Force Policy provided the president—through a mix of assets including active, Selected Reserve, and Individual Ready Reserve (IRR)—with options for employment of force.

The Availability of the Reserve Components

There were three phases of reserve mobilization in ODS/S: (1) the volunteer period (August 2–22, 1990) (2) the period of Selected Reserve unit activation (August 23, 1990–January 17, 1991) when Section 673b (presidential call-up) was used in three separate and limited increments, and (3) the final period of partial mobilization (January 18, 1991–end of hostilities). This represented a slow, incremental call-up of some 225,000 reservists over seven months.

Individuals

The large number of reservists who actively tried to volunteer for duty in ODS was unprecedented and unanticipated. However, there were some problems associated with using volunteers. One problem is the lack of explicit policies and plans for using volunteers. Also, for long deployments, voluntarism can be expected to decrease as the pool of those able to volunteer is depleted. In ODS/S during December 1990 and January 1991, volunteers were also being discouraged, and most were placed in an involuntary status in anticipation of hostilities. Another problem is that those who volunteered were not always those who were most needed. Consequently, voluntarism cannot always be counted on to fill critical needs in the absence of a call-up. Further, when individuals volunteer, their units may lack critical skills and have degraded readiness if later mobilized.

Prior military planning had assumed that individual reservists would be available involuntarily early in a conflict. However, under the measured call-up in ODS/S, Individual Ready Reservists were not available until January 18, 1991, when partial mobilization was declared. When called, these reservists, most of whom had recent active duty experience, "showed" at a greater rate than had been expected.

Units

On August 22, 1990, the president implemented Section 673b for the first time since its enactment, and on the next day Secretary Cheney authorized the initial call-up of Selected Reserve units. But Section 673b was not implemented the way most military planners had envisioned that it would be used.

The emphasis in the August 23 call-up was on *minimum essential augmentation*. The full 200,000 call-up authority was not used at once because there was not a need to do so. The types of units called reflected the commander in chief's (CINC's) priority to establish an initial deterrent force of combat units with minimal support structure. This guidance translated into plans for Selected Reserve units from the Army that were primarily combat support or combat service support (CS/CSS) that could assist in the deployment of the active combat forces. Only a small number of specific CS/CSS units with critical skills were initially deployed to SWA. The Air Reserve Component (ARC) provided capabilities for expansion of critically needed strategic airlift, logistics/maintenance support for refueling, and high-priority in theater support.

The first call-up did not include any combat forces. The Secretary of Defense had precluded the Army from using the initial call-up for combat units. The Secretary of Defense's initial decision and response to the Congress sparked a continuing debate. Members of the Army National Guard (ARNG) expressed concern that their expectations of being mobilized and deployed with their active-component parent division had not been met.

Ultimately, the Army, the U.S. Marine Corps (USMC), and Air Force each activated reserve component combat units. The Army mobilized three ARNG roundout brigades and two field artillery brigades. The roundout brigades entered into a period of extended post-mobilization training. The artillery units were scheduled for deployment in late December 1990 and early January 1991. The Air Force activated three ARC combat squadrons (two Air National Guard F-16 units and one Air Force Reserve A-10 unit) to demonstrate the Total Force Policy concept. The USMC called up combat elements of the 4th (Reserve) Marine Aircraft Wing and Division, which included infantry, artillery, and tank units to augment forces already deployed.

During the five-month period during Operation Desert Shield when the reserve call-up was based on the authority in Title 10 U.S.C., Section 673b, the law was used as intended to access needed reserve forces while maintaining

political and diplomatic leverage. Further, the reserve components were, available and reported promptly when called to duty. However, several problems did emerge:

First, the lack of a validated operational plan (OPLAN) caused planners many problems. For example, Army reserve component units were deployed through an *ad hoc* process that was not generally based on pre-existing affiliations with active units under the CAPSTONE program. This required that new relationships be forged in the tense environment of contingency planning and execution.

Second, plans were based on the assumption that the presidential Selected Reserve call-up would take place at the beginning of a crisis. The delay in initial authorization, the phased call-up of reserve units, as well as the restriction of how many could be activated, affected the deployment and organization of forces in the theater. Some Army reserve component units that could have been used for logistics in early August were not available.

Third, by not moving quickly to partial mobilization, the call-up did not give planners access to individual reservists in the IRR. In ODS/S, the IRR was not available until January 18—long after many reserve units had mobilized and deployed. Thus, for those units that were understrength and needed additional personnel prior to deployment, added strength before mobilization came from other Selected Reserve units and individuals and after mobilization from active personnel. Cross-leveling in this fashion allowed some units to deploy but degraded the readiness of remaining units. Other understrength units were deployed at the lower manning levels consistent with minimum deployment criteria.

Fourth, Section 673b states that the activation of Selected Reserves is by *unit*. Prior to ODS/S, the administrative interpretation of "unit" was commonly taken to be any organization possessing a unit identification code (UIC). But during the Persian Gulf Conflict, the strict limit on the number of activated reservists and the provision that only units could be activated caused services to alter their pre-ODS/S mobilization plans. A unit was interpreted as any collection of two or more with a common mission. This definition, consistent with the original Section 673b legislation but not necessarily with military administrative practice, gave the services much greater flexibility but at the price of losing a degree of control over unit integrity.

Fifth, there was consternation about why some reserve component combat units were called and others were not called. This intensified long-standing

animosities between active and reserve personnel and resulted in political tension between the administration and Congress. Reserve members were convinced that they were being discriminated against. The controversy over the ARNG roundout brigades underlined the tensions between competing schools of thought about when to use reserve forces:

- Should reserve component units be activated during a contingency because they are part of the total force? or

- Should reserve component units be activated only when a clear need can be anticipated?

The issue was not settled by either the Army's decision to call up the three roundout brigades and send them for extensive post-mobilization training or the Air Force's decision to call up a small number of ARC fighter squadrons.

In ODS/S, the numbers and types of reserve units that were needed were available through use of the existing authorities. That need was predominantly for reserve support units. By and large, the active combat forces were sufficient to meet the need for combat units in ODS/S—although this sufficiency varied across services. With the threat in Europe greatly reduced and with the defense drawdown only beginning, U.S. active military forces that would have been required to remain in Europe or other geographical areas during regional contingencies or which would have been disestablished during the drawdown were available. While one might speculate about the entire Persian Gulf Conflict had the Warsaw Pact still been a military threat, the availability of trained and ready U.S. forces stationed in Europe diminished the "need" for certain types of reserve component forces. In ODS/S, reserve forces were "called as needed" against regional commander requirements and emerging OPLANs while decisionmakers considered the international and domestic political ramifications of making them available through the several authorities.

The Readiness of the Reserve Components
Individuals

Operationally ready, as applied to individual military personnel, means available and qualified to perform assigned missions or functions. Measurement of readiness for individuals includes preparedness against deployability criteria such as medical and dental and against qualifications to perform individual jobs within units—MOSQ or skill qualification. Individual readiness deficiencies affect unit readiness to the extent that they

must be overcome prior to accomplishing needed unit training. In general, the reserve components began early in the conflict to prepare for possible call-up by alerting and cross-leveling individuals in units. Many reservists were initially unable to meet deployability standards because of medical and dental problems, but improvements accelerated as deficiencies were fixed or standards were waived. The readiness of individual reservists was generally high in ODS/S.

Units

Readiness is not easily measured. The most quantitative indicator in the complex evaluation of a unit's ability to go to war is the "C-rating" under the Status of Resources and Training System (SORTS), which is not acknowledged as an adequate readiness assessment system. The C-rating of a unit was the initial consideration in selection of units for ODS/S. Also, particularly for the Army, the C-rating was the primary standard for validating a unit for deployability.

Taking deployment as an indication that the units were considered ready, our review showed differences across services and types of units. In the Army, many reserve component CS/CSS units were quickly mobilized and deployed. ARC units were similarly deployed early. ARNG artillery units and Marine Corps Reserve infantry and armor units were activated and deployed quickly.

Prior to ODS/S, the minimum Army standard for deployment for active and reserve units was C-3, which means a unit is able to accomplish a major portion of its wartime mission. The Army continued this standard in ODS/S for deploying CS/CSS units. Mobilization and deployment of CS/CSS units was fairly straightforward. Minimum collective training was provided except where units were modernized or provided added equipment. Pre- and post-mobilization actions and a deployability standard of C-3 made Army reserve component CS/CSS units deployable without unacceptable delay. Readiness of these units was not a detriment to meeting in theater arrival times.

About 80 percent of all Army combat units, active and reserve, were rated C-3 or higher prior to ODS/S. Large maneuver units in the ARNG were not initially mobilized. When Secretary Cheney announced the call in November 1990 of the ARNG brigades, he cited the opportunity to train to active component standards, which had been raised in the Army to C-1 for combat units. The issue of post-mobilization training to the SORTS C-1 standard

against the expected tasks and conditions of the Persian Gulf became dominant for the ARNG brigades. Prior to ODS/S and based on SORTS data, 30–40 days of post-mobilization training was expected. However, Army training is based on achievement of standards. Actual training time became a function of need for the unit as well as readiness against training standards as judged by the validating officer. Ninety-one days after call, and as the war ended, the 48th Brigade was judged to be combat ready after observation of its performance at the National Training Center. This was an unprecedented achievement, compared to previous mobilization experience, but seemed something less, compared to pre-ODS/S rhetoric and expectation. The critical question remains the reality for the future.

Air Reserve Component units were quickly deployed and performed successfully in ODS/S. The Air Force holds its Air National Guard and Air Force Reserve units to the same readiness standards expected of active units. In general, the Air Force resources (provides funds, equipment, and personnel) its reserve components for greater training opportunity, which should result in greater performance. The air mission lends itself to being ready, and this was seen in ODS/S. ARC units, crews, and support personnel required little to no post-mobilization training before accomplishing their missions. Unlike the Army, there was not a formal post-mobilization validation process as part of the deployment paradigm. Rather than after-the-fact validation, acceptance up front of their stated readiness was typical. Flying units mobilized in 24 hours or less and were prepared to deploy in less than 72 hours, which the Secretary of the Air Force states as the minimum goal for them.

How Effective Was the Total Force Policy in the Persian Gulf Conflict?

Our evaluation of effectiveness in the Persian Gulf Conflict asked two questions: Did Total Force Policy make the numbers and types of reserve forces needed in ODS/S *available* to the National Command Authority? Were those forces *ready* to carry out their assigned missions? Under Total Force Policy, the reserve forces are intended to be available and ready as the initial and primary augmentation of the active forces in any contingency. Judged by these criteria, Total Force Policy, while not without some problems and not without some controversy, was effective in the Persian Gulf Conflict.

What Did We Learn That Is Useful to Consider for Total Force Policy in Future Conflicts?

What did the Persian Gulf Conflict teach us about Total Force Policy that might help us set policy for future conflicts? We believe that the following are some of the concerns and lessons that need to be considered.

Contingency plans should acknowledge the need for volunteers from the reserve components early in operations. These plans should identify the missions for which volunteers would most likely be needed and establish a minimum length of participation for volunteers. Some degree of voluntarism probably can always be counted upon early in a contingency.

Extended and incremental use of Section 673b needs to be factored into planning. The Section 673b authority allows the president to augment the active forces with the Selected Reserve and has two important effects. It gives the president greater flexibility to use mobilization as an instrument of diplomacy. It is the complement to Total Force Policy: Assuming that the Section 673b call-up authority will be used to meet deployment requirements in major contingencies should make planners more comfortable in reducing the size of the active forces and putting more of the emergency capacity in the reserves.

Whether reserve component units should be activated during a contingency because they are part of the total force or should be activated only when a clear need can be anticipated was not resolved. The purposes and criteria for activation of the reserve components need to be decided. Expectations of many reservists of use in a major contingency were unmet in a less demanding contingency than the global one on which forces had been sized. In future, the military will plan for the most demanding scenario as in the past. If the ODS/S model of calling reserve forces only as needed is continued into the future, reserves may never be used in lesser scenarios no matter their availability or readiness. The DoD needs to clarify and communicate the basis on which reserve component forces will be used in the future. These concerns are intertwined with the robustness of the force. Smaller future forces may require early use of both components for almost any contingency. This needs evaluation.

There are two lessons that military planners can learn from the use of partial mobilization as played out during ODS/S. First, the planning model that assumed an early implementation of partial mobilization was incorrect. The late implementation of partial mobilization in ODS/S meant that individual

fillers, particularly for the Army, were not available from the IRR for the first five months. This required cross-leveling at home station to obtain individuals with the needed skills. In the future, planners need to account for the possibility that IRR personnel will not be available. Second, once partial mobilization was invoked, IRR members were available at greater "show" rates than had been expected. The Army particularly called RT-12 from the IRR, and these recently separated personnel should be the focus of explicit plans in the future.

Deployment of Army CS/CSS units against higher standards than the C-3 minimum SORTS standard was not observed in ODS/S. Both the USMC and the Air Force use a higher standard for all reserve component units and re-sourced those units in peacetime to achieve the standard readily in war. The effect of deploying support units at readiness levels lower than combat units they are supporting should be assessed.

While actual train-up time of the Army's roundout brigades took longer than expected, there are many uncertainties that affect estimates of future train-up time. Among them are the General Accounting Office contentions that the lack of objective validation criteria and the many active trainers used in the post-mobilization process make the Persian Gulf experience not generalizable. If validation after mobilization is a useful practice, then clear standards for pre- and post-mobilization training and proficiency against mission essential tasks are needed. Other variables include deploying the brigades at a C-2 standard (able to accomplish the bulk but not all of their wartime missions) similar to the standard of the Air Force and USMC; resourcing the brigades at a higher level in peace to accomplish the standard more quickly at mobilization; and training at mobilization under the time pressures of early deployment. Analysis of post-mobilization train-up time is central to any decisions about active/reserve mix and is one of the centerpiece tasks for another part of this congressionally mandated study. As seen in ODS/S, for these and all reserve units, the date of call-up also directly affects the date of deployment.

In the Army, some active units were sent in place of reserves, and integration as envisioned under the CAPSTONE program did not occur. CAPSTONE alignments, based largely on the global conflict scenario, were generally not followed in ODS/S. The level and logic of directed training associations under the existing CAPSTONE program, such as roundout and roundup, also need evaluation for effectiveness in new scenarios.

Our conclusions about individual readiness should be tempered by three facts. The first is that a tremendous amount of effort was made to ensure that individuals were deployable prior to call. The incremental call-up and the robust reserves allowed this to occur. Smaller future forces or more rapid deployment might impede this flexibility. The second is that, because of lift constraints, units remained at mobilization stations beyond the time needed to reach unit deployment and readiness standards, which allowed added time for correcting individual deployability problems. The third is that access to the IRR did not occur until January 1991. Earlier access would have allowed "more" ready individuals, particularly in skill qualification, to be assigned to called units.

Reforms have merit but solutions to reserve readiness problems in the Army, particularly, have been difficult to achieve because of: (1) the lack of resources and (2) inconsistencies with the limited time that reservists are able to devote to military training. While many good ideas have come out of the ODS/S experience, there was no shortage of good ideas before the Persian Gulf Conflict. History cautions us not to assume that just because a proposal has been made, improvements will follow quickly, or ever follow.

Reforms would only be expected to have a marginal improvement on the readiness of the Air Reserve Component and Army reserve component CS/CSS units *as seen in ODS/S*. The question of "reform" for units that met their deployment dates in ODS/S may be moot *except under changed assumptions in the future, such as the need to deploy sooner or at higher standards or given less robust overall active and reserve forces*. However, reforms could lead to significant improvement for Army reserve component combat forces under any assumptions to include those of ODS/S. The range for improvement seems much larger especially under the condition that these units must improve to a C-1 SORTS standard before deployment. Given the expected length of time to accomplish this, there is greater opportunity to gain meaningful time savings. The effect of reform given new illustrative planning scenarios and changed conditions needs to be considered.

Acknowledgments

This study has benefited throughout from the research and wisdom of fellow RAND researchers as well as from that of many staff members of the Center for Naval Analyses, the Institute for Defense Analyses, and the Logistics Management Institute—these organizations completed the many tasks of the overall study. The comments of the panel of experts associated with the study were invaluable. National Defense Research Institute colleagues, especially Bernard Rostker and Glenn Gotz, were insightful throughout; Joyce Peterson made major contributions. Two RAND reviewers, William Hix and Ron Sortor, offered helpful suggestions.

Many members of the Department of Defense actively aided our inquiry. Congress, and its various arms, such as the General Accounting Office, Congressional Budget Office, and Congressional Research Service, provided useful information and insights. The work of many authors has been reviewed as we conducted our research, and we must praise the many lucid and detailed commentaries that have been written on the Persian Gulf Conflict. But mostly, we must thank the many men and women of the total force who served during the conflict and took the time and effort to explain their experiences to us.

1. Introduction

In 1970, Secretary of Defense Melvin Laird promulgated a *Total Force Concept* to guide decisions for planning for and using active and reserve forces.[1] In 1973, Secretary of Defense James Schlesinger made this concept the official policy of the Department of Defense (DoD) and specified that *reserve forces would be the initial and primary augmentation of active forces and military response would involve the integrated use of all forces available including active, reserve, civilian, and allied.*[2]

During the 1970s and 1980s, Total Force Policy became a "basic pillar" of the nation's military strategy.[3] The reserve components[4] became an increasingly important element of national defense, and the Congress provided significant resources and new authority for their use. In August 1990, the first major test of this policy began. Operation Desert Shield/Storm (ODS/S) provides unique empirical data about calling-up, mobilizing, and deploying the reserve military forces that were the products of Total Force Policy. The Persian Gulf Conflict was:

- The first large scale call-up and use of reserve forces since the Korean War;

- The first major conflict under the Department of Defense's Total Force Policy; and

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[1]*Support for Guard and Reserve Forces*, Memorandum from the Secretary of Defense, August 21, 1970.

[2]The first tenet of Total Force Policy is the primary one of concern in this Note. For a more thorough discussion of the history of active and reserve mix and the evolution of Total Force Policy see National Defense Research Institute, *Assessing the Structure and Mix of Future Active and Reserve Forces: Final Report to the Secretary of Defense*, RAND, MR-140-OSD, 1992.

[3]"The end to conscription in 1973 and the need to make the most effective use of available resources led the Department of Defense to formulate the 'Total Force' policy. The objective of the policy is a balanced mix of forces that fully utilizes all available assets, while ensuring that the maximum military capability is achieved at the minimum realistic cost. Today, this policy is a reality and the National Guard and Reserve forces have been assigned significantly expanded peacetime operational responsibilities as well as greater wartime missions." Department of Defense 1215.15-H, *Reserve Components of the United States Armed Forces*, May 1990, p. 1.

[4]Each reserve component consists of the Ready Reserve, Standby Reserve, and Retired Reserve except for the Army National Guard and Air National Guard, which do not have a Standby Reserve. The Ready Reserve consists of three subgroups: the Selected Reserve, the Individual Ready Reserve, and the Inactive National Guard. Department of Defense 1215.15-H, *Reserve Components of the United States Armed Forces*, May 1990, p. 12.

- The first call-up using the new authority to access reserves provided by the Congress in 1976.

Research Task

The research reported here is part of a larger study mandated by the National Defense Authorization Act for Fiscal Years (FYs) 1992 and 1993. Congress required the Secretary of Defense to assess alternatives for the structure and mix of future active and reserve forces. The purpose of our task, as mandated by Section 402, of that act is to evaluate the effectiveness of the Total Force Policy during the Persian Gulf Conflict.

In considering the effectiveness of Total Force Policy in the Persian Gulf Conflict, we must be certain that any conclusions we draw are not over generalized. As highlighted above, ODS/S was a conflict of "firsts"; in other respects, it was also the "last" campaign of the Cold War because ODS/S occurred near the beginning of the programmed drawdown of forces and the redeployment of U.S. forces from Europe. The United States had robust military forces, and many of the combat and support formations used in the Gulf came from forward-deployed active forces at high states of readiness. Moreover, we were allowed to build up forces over a substantial period; we were able to use existing infrastructure in Saudi Arabia; and the ground war was very short. As a senior U.S. commander put it:

> Desert Storm was the perfect war with the perfect enemy. . . .
> We had the perfect coalition, the perfect infrastructure, and the
> perfect battlefield. We should be careful about the lessons we
> draw from the war.[5]

Purpose and Focus

In this study, we focus on how reserve components were used in the Persian Gulf Conflict.[6] Specifically, we will assess Total Force Policy through a

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[5]Senior U.S. Commander as quoted in Les Aspin and William Dickinson, *Defense for a New Era: Lessons of the Persian Gulf War*, U.S. Government Printing Office, Washington, D.C., March 30, 1992, p. 3.

[6]Our emphasis is on Selected Reserve units and the Individual Ready Reserve (IRR), which are both part of the Ready Reserve. The Selected Reserve consists of units and individuals essential to wartime missions who have priority for training, equipping, and personnel over other reserve elements. The individuals in the Selected Reserve are Individual Mobilization Augmentees (IMAs) who are assigned to mobilization billets in active component organizations. The IRR is a manpower pool consisting mainly of trained individuals with previous active or re-

statement of intent by the Assistant Secretary of Defense (Force Management and Personnel),

> We plan to support military contingencies with Guard and Reserve *units* and *manpower* when they can be *available* and *ready* within planned deployment schedules[7] [emphasis added].

This study has two purposes. The first is to answer questions about the effectiveness of Total Force Policy. We try to determine if Total Force Policy made *available* the requisite numbers and types of forces to the National Command Authority to use in support of ODS/S. We try to determine if those forces were ready to carry out their assigned missions. The second purpose is to derive lessons from the evaluation for the larger force mix study. How might aspects of Total Force Policy best be changed in the future, given new national military strategy, a reduced military budget, and the resulting change in the mix of active and reserve forces?

Sources of Information

In the evaluation, we used past studies of Total Force Policy, histories and commentaries about reserve forces, the Congressional Record, and annual reports of the Secretary of Defense, and the Reserve Forces Policy Board. Information and data about the reserve components in the Persian Gulf Conflict came from the numerous after-action reports and lessons-learned commentaries prepared by the DoD, the military services, Congress, and organizations such as the General Accounting Office (GAO), the Congressional Budget Office, and the Congressional Research Service. We also conducted our own interviews with people who were in strategic positions to observe the working of the Total Force Policy during the Persian Gulf Conflict.[8]

For the section on readiness, we particularly drew on the first-hand experiences of various RAND staff members conducting research for their respec-

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serve service. Department of Defense 1215.15-H, *Reserve Components of the United States Armed Forces*, May 1990, p. 12.

[7]Assistant Secretary of Defense (Force Management and Personnel, cited in National Defense Authorization Act for Fiscal Years 1992 and 1993, Report 102-114, U. S. Senate Committee on Armed Services, p. 202.

[8]Members of the RAND staff for this task conducted extensive interviews of personnel involved in ODS/S beginning in the spring of 1991 and continuing to the present. We will cite these as RAND discussions throughout this Note. During the spring and summer of 1991, staff of the House Armed Services Committee (HASC) conducted detailed interviews in many locations of commanders, staffs, and unit personnel involved in ODS/S. The HASC staff allowed RAND access to these detailed notes. We will cite them as HASC discussions. Unless particularly germane, we will omit specific names and units from the citations.

tive service sponsors within RAND's Project AIR FORCE and Arroyo Center on the call-up, mobilization, and deployment of forces at headquarters, at mobilization stations, at the National Training Center, and in Southwest Asia. We incorporated material from our own interviews, from ongoing RAND research, and from analysis of published and unpublished data derived from GAO and other assessments to add relevant detail and clarify points. For the section on availability, we relied more heavily on published studies and data.

Our perspective is different from much of the written material that focuses on operational aspects of the Persian Gulf Conflict. In this study, we are interested in the various policies, plans, procedures, and practices that have been established to carry out Total Force Policy and how they led to available and Ready Reserve units and individuals during the Persian Gulf Conflict.[9]

Structure of This Document

In this introductory section, we have described our approach and purpose in assessing the effectiveness of Total Force Policy during the Persian Gulf Conflict. In Section 2, we "set the stage" by reviewing the various legal authorities available to the president on the eve of the Gulf conflict for using the reserves. We examine pre-crisis military planning, which helps explain the particular steps carried out during ODS/S and the expectations that many members in Congress had concerning which units might be used during the conflict. We also review such factors as the size of the total force (active and reserve) and the threat faced by these forces in other areas of the world. Sections 3 and 4, respectively, present our assessment of availability and readiness of reserve units and individuals. Section 5 presents our overall assessment of the effectiveness of Total Force Policy in the Persian Gulf Conflict.

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[9]We will examine only those policies, plans, procedures, and practices deemed central to the question of effectiveness of Total Force Policy during the Persian Gulf Conflict according to our purpose and focus. Obviously, we will not be able to address every or even most circumstances where policy, plan, or procedure was followed nor are we interested in practices that did not follow policy, plan, or procedure where that fact would not change our conclusions.

2. Setting the Stage for the Application of Total Force Policy in the Persian Gulf Conflict

On August 2, 1990, the day Iraq invaded Kuwait, the military force structure of the United States was the product not only of the Department of Defense's Total Force Policy but also of military planning that had focused for over 40 years on a potential global conflict with the Soviet Union. The common planning assumption was that in the event of war there would be full—and fast—mobilization of reserve forces to prosecute the contingency in the most militarily efficient manner. While Congress had also provided the president with new authority to have a "phased" call-up of reserve units, military planning did not encompass prosecuting a major contingency for any length of time using only a presidential call-up and assumed that the United States would move at least to partial mobilization within a matter of days. The history of military planning for reserve mobilization is to plan for achieving greatest military efficiency and flexibility, which is provided by full mobilization. The Persian Gulf Conflict did not follow that script. In this section, we provide important background information that helps explain why a different script was followed. Specifically, we consider (1) the legal authority available to the president to access reserve forces, (2) the prior planning that shaped options and resulted in expectations about what units would be called, and (3) the total force—active and reserve—that was available to the president for use in the Persian Gulf.

Legal Authority for Accessing Reserve Forces

There are four major means for making reserve forces available in a crisis— voluntarism, partial mobilization, full mobilization, and presidential Selected Reserve call-up for operational missions.[1] The first three existed before Total

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[1]There is an additional authority for mobilization of reserves in peacetime—Selective Mobilization (Title 10 U.S.C., Sections 331, 332, 333; Title 14 U.S.C., Section 172). This activation of reserve components is in response to a domestic emergency.

Force Policy. The newest authority, the "Section 673b" authority first granted in 1976, allows a president to call up as many as 200,000 reserves for up to 180 days to "augment operational missions" without the need for a declaration of a national emergency.[2] We emphasize this newest authority because it was designed to make reserves available and ready to augment active forces for operational missions, and it was the authority predominantly used in ODS/S.

Authority to Call Reserves Prior to Total Force Policy

Volunteers are available through Title 10 of the U. S. Code, Section 672(d). A member of a reserve component may be ordered to or retained on active duty with his consent and, in the case of the National Guard, with the consent of the governor.[3] Prior to ODS/S this law had been most recently used for contingency operations during Operation Just Cause in 1989. The Air National Guard routinely makes use of 672(d) through its "preplanned" volunteer agreements with states for specific missions such as alerts and special operations.[4] The Air Force Reserve also has preplanned agreements. The use of this legal authority is a force expansion option at the low end of the crisis escalation scale since it affords augmentation of the active component without presidential or congressional action.

Title 10 U.S.C., Section 673, allows the Service Secretary or designee to activate reserve component units and individuals involuntarily during a time of national emergency declared by the president, or when otherwise authorized by law, for not more than 24 consecutive months. There is a limit under Section 673 of 1,000,000 members of the Ready Reserve who may be on active duty, without their consent, at any one time. This is known as **partial mobilization.** The Berlin call-up in 1961 was a partial mobilization.

Title 10 U.S.C., Sections 263 and 672(a), makes reservists available at **full mobilization.** Title 10 U.S.C., Section 263, *Basic policy for order into Federal service*, states that when Congress has determined that national security re-

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[2] Title 10 U.S.C., Section 673b. The National Emergencies Act (50 U.S.C. Section 1601 et seq.) governs declaration of national emergencies.

[3] A subsection was added to the original law in 1986 (10 USC 672(f)) that constrains a governor's authority to withhold consent for active duty to be performed outside the continental United States. "The consent of a Governor . . . may not be withheld (in whole or in part) with regard to active duty outside the United States, its territories, and its possessions because of any objection to the location, purpose, type, or schedule of such active duty."

[4] *Air Force War and Mobilization Plan, Volume 1.*

quirements are not sufficiently met by the active component forces it can order reserve component forces to active duty and retain them as long as necessary. Title 10 U.S.C., Section 672(a), *Reserve components,* empowers the Service Secretary to activate any reserve unit or individual involuntarily once Congress has declared war or a national emergency.

Total Force Policy—Presidential Call-up Authority

Because Total Force Policy relies on reserves as the initial and primary augmentation for active forces, Congress recognized a need in the mid-1970s to make reserves available beyond voluntarism and absent a declaration of a national emergency. Section 673b of Title 10 was the result.

The impetus for Section 673b was a 1974 Air Force request to add over 10,000 active duty military and civilian personnel "to increase the aircrew to aircraft ratio for strategic transport aircraft in emergency situations."[5] This request was made after the experience of the airlift to aid Israel during the Mideast War of 1973. The Senate Armed Services Committee denied this request and suggested that emergency missions requiring a surge capability could be done by reserve components. The Secretary of Defense was directed to assess the desirability of new statutory authority for calling up reserves.

The Senate Armed Services Committee reviewed the resulting departmental request for a presidential call-up of the Selected Reserve in a 1975 hearing.[6] This hearing explored the possible context of a Selected Reserve call-up and how it could and should be done and laid the theoretical groundwork for the practical "experiment" that would occur 15 years later in the Persian Gulf.[7]

Senator Nunn had opened the hearing by stating: "I personally felt that one of the big impediments in preventing the total force policy from being a reality rather than a rhetoric has been the subjective reluctance of many people on active duty to believe that the Reserve Forces are a credible force that can be called or would be called." The discussion about the new authority emphasized the availability of support forces because they could be productive in a 90-day period and because 39 days was adequate annual training for them to be immediately deployable. Combat forces were usable within the

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[5]*Senate Report 94-562,* December 15, 1975, p. 5.

[6]*Hearing before the Subcommittee on Manpower and Personnel of the Committee on Armed Services of the United States Senate,* July 30, 1975.

[7]This authority was used for the first time on August 22, 1990.

authority, but additional training for combat units—varying on the unit's size and pre-mobilization readiness status—was expected to be needed before deployment. The hearing also discussed

- The authority of the executive branch to use the reserves and the international implications of such use under conditions of national emergency;

- The role of Congress in the use of such authority;

- The relationship of the bill to the War Powers Act;

- The impact of the proposal on the people and communities associated with the reserves; and

- The military "efficiency" of the Total Force Policy concept.[8]

Both the DoD and the Senate Armed Services Committee believed that reserves should be "ready and available" early. Thus, in 1976, the initial Section 673b authority allowed the president to activate Selected Reserve units for 90 days and to a maximum of 50,000 reservists. Debate of the issues of availability and readiness continued throughout the 1980s.

Evolution of Section 673b

Over the following 10 years, Section 673b evolved as shown in Table 2.1.

Table 2.1

EVOLUTION OF SECTION 673b AUTHORITY

Year	Number of Reservists	Duration
1976	50,000	90 days
1980	100,000	90 days
1986	200,000	90 + 90 days

In 1979, the Nifty Nugget mobilization test showed 50,000 reservists to be inadequate for flexible crisis response.[9] It was argued that an increase to 100,000 would enable "planners to develop flexible planning and employment options to recall selectively Guard and Reserve Forces in combinations

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[8]*Senate Report 94-562*, p. 4.

[9]"The active component, recognizing that Guard and Reserve Forces are likely to be called on for immediate support during the earliest stages of a military emergency, has assigned them important missions and provided modern equipment to support those missions. Because Guard and Reserve Forces can be activated promptly, their credibility has increased significantly and they are, in the truest sense, effectively integrated into the defense structure." General Counsel of the Department of Defense, Letter to President of the Senate, April 23, 1980.

which can both help contain a crisis while concurrently laying the groundwork for higher levels of mobilization should deterrence fail."[10]

By 1986, because of the increased reliance placed on the reserve forces in recent years, it was generally accepted that the 100,000 limitation also would not supply enough reserves and might result in the armed forces being unable to prepare adequately for any full mobilization. The Department of Defense Authorization Act for 1987 increased the ceiling to 200,000, and the president was also allowed to extend the period of involuntary call by an additional 90 days. Thus in 1990, Title 10 U.S.C., Section 673b, allowed the president to activate Selected Reserve units for 90 days, with one 90-day extension, and to a maximum of 200,000 reservists.

Factors Affecting the Use of Section 673b

The Section 673b authority became an important component of Total Force Policy in that, "If it is assumed that the Section 673b call-up authority will be used to meet deployment requirements in major contingencies, it is much easier to make reductions in the size of the active force."[11] The authority allowed the military to gain needed augmentation without "stockpiling" capability in the active force, but only if the president was willing to use the authority granted by Congress. And the Section 673b authority became, in the mind of Pentagon planners, a way of allowing the president to "augment the active forces with the Reserves for operational missions without having to declare a full-scale national emergency with all the attendant *international and domestic* implications this can have"[12] (emphasis added). If reserves were quickly available to the military, then capability and missions could be placed in them with at least some assurance that the capability would be more easily accessible and with fewer international and domestic political considerations.

International Political Constraints

The Section 673b authority allows the president to take action to augment active forces when declaration of a national emergency and mobilization,

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[10]Idem.

[11]Department of Defense, *Total Force Policy Report to the Congress*, December 1990, p. 48. This report also stresses that excessive reductions in active forces could leave only the option of an involuntary call-up for even the most minor contingencies.

[12]General Counsel of the Department of Defense, Letter to President of the Senate, April 30, 1975.

even partial mobilization, could be seen as a destabilizing act. In general a mobilization is an "instrument of diplomacy."[13] In the United States, the Berlin crisis marked our first use of a reserve mobilization as such an instrument. On July 26, 1961, President Kennedy requested from Congress the authority to mobilize up to 250,000 reservists to prevent a war rather than to fight one. Such a use of reserves comes at a cost. Discontent among reservists who did not perceive a military purpose for their mobilization or a visible military mission to perform received media attention and aroused the concern of Congress.[14]

The reverse is also true. Early in the Vietnam Conflict, President Johnson wished to avoid provocative acts and decided not to call the reserves because "such a move would require the declaration of a national emergency, create the image that the United States was involved in a major war, and thereby risk a more direct involvement by the major Communist powers."[15] When the president did decide to call the reserves two days after the North Koreans seized the *Pueblo* on January 23, 1968, the press speculated that the president was flashing a signal of U.S. resolve.[16] Some 14,000 Air Force and Navy reserves were called. Whether the call had an effect is uncertain because, slightly over one week later, the Tet offensive in Vietnam raised the issue of further calls, and in April 1968 slightly more than 20,000 reserves were ordered to active duty.[17] Again the media surfaced reservists' complaints of being rushed to active duty but with little to do once mobilized.[18] For its part, the DoD explained that once on active duty the mobilized reservists were part of the "total world wide defense structure."[19]

Using reserve forces as instruments of diplomacy has limitations. Idleness reduces morale and effectiveness. Fewer problems exist when units have been mobilized for genuine emergencies or have been actively involved in fulfilling meaningful military missions.[20] Calling only those reservists that are planned to be used emerged as a lesson. When General Powell stood with the president and the Secretary of Defense at Kennebunkport, ME, on August 22, 1990, to announce the reserve call-up, his statement that the re-

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[13]Martin Binkin and William W. Kaufman, *U. S. Army Guard & Reserve: Rhetoric, Realities, Risks*, The Brookings Institution, Washington, D.C., 1989, p. 62.

[14]Ibid., pp. 44–45.

[15]Ibid., p. 49.

[16]Ibid., p. 54.

[17]Assistant Secretary of Defense (Manpower and Reserve Affairs), *Annual Report of the Secretary of Defense on Reserve Forces*, Washington, D.C., 1968, p. 101.

[18]Binkin, p. 56.

[19]Williams, cited in Binkin, p. 56.

[20]Binkin, p. 62.

serves will be "called as needed" was entirely consistent with lessons learned from past mobilization experience.

Domestic Political Constraints

The Constitution makes the president the commander in chief (CINC) of the armed forces and reserves to the Congress the right to declare war, raise and support armies, provide and maintain a navy, and provide for calling forth the militia. "The intent was to ensure that war could not be waged without approval of the 'representatives of the people, periodically elected.'"[21] When Jefferson dispatched the Navy to the Barbary Coast in 1801, "he established the precedent that the president, acting under his authority as commander in chief, could dispatch military forces to counter immediate threats." This "American way of war" thus had two different dimensions: "One was a major undertaking requiring congressional approval. The other type of war was waged by the president with active forces alone."[22]

The Section 673b authority allows the president to augment, without a debate with the Congress, active military forces for a limited time with reserves in a similar manner to active units that "do not have their availability contingent on the politically sensitive decision to mobilize."[23] The Congressional Research Service states that questions raised by the political and social implications of a reserve mobilization may be the most important of all regarding reliance on the reserves.[24] While not the most efficient authority militarily, Section 673b allowed use of the reserves for operational missions without the necessity of the larger debate created by declaration of a national emergency and partial mobilization.

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[21] Harry Summers, "Defining Our Terms for Waging Wars," *Washington Times*, April 16, 1992, pp. G-4.

[22] "Since 1801, there have been some 200 incidents when the president committed active forces to action without seeking congressional approval." Summers, idem.

[23] Les Aspin, "Does Total Force Remain Vital in Post–Cold War?" *The Officer*, February, 1991, p. 26.

[24] "It appears that reliance on the reserves did, in the case of the Gulf War, assist in forcing the President to secure public and congressional support and move rapidly to a military decision." Paper prepared by Robert L. Goldich in *Persian Gulf War: Defense-Policy Implications for Congress*, Congressional Research Service, May 15, 1991, p. 62. The military itself appeared aware of this domestic political constraint in that the Army "did not press for early access to the IRR and selected RC [reserve component] units, and a callup duration in excess of 180 days [the 673 partial mobilization authority] in Operation Desert Shield (when they were clearly required) [militarily] apparently because of the uncertainty of the reaction from the Executive, the Congress, and the public." Department of the Army, *Integrated Army Mobilization Study (IAMS) (U)*, February 5, 1992, p. II-3.

Summary

Prior to the Section 673b authority in 1976, the president had to declare a national emergency for mobilization in order to gain access to reserve units. Having a new mechanism to gain access to reserve units enabled substantial military capability, especially support, to be placed in the reserves under Total Force Policy. Under Section 673b, reserve units could become available to the commander in chief for operational missions in limited numbers and for limited periods. The president had the capability to do what he felt was needed in a limited and measured way. However, the Congress retained control by limiting the president to a number of reservists to be called and to a time-period: "Control of Reserves by the Congress is tantamount to control of the President's capacity to wage a major conventional war."[25]

The new authority for making reserves available better accommodated international and domestic political needs while the older authorities for partial or full mobilization better accommodated the military and its planning processes by making more units and individuals available and for longer periods. The new authority was perceived as useful to the military in certain circumstances but, unless it was only a step to a larger mobilization, meant that the contingency would need to be of short duration and limited in size. But a contingency of this type was not the most demanding one for which the military planned.

Military Planning for Contingencies

Military planning for use of reserves in contingencies, particularly for global war, directly influenced expectations by reserves for mobilization and deployment. These expectations are critical for understanding the issues involving availability and readiness of the reserve components (RCs) during the Persian Gulf Conflict.

The Cold War

The U.S. force structure available to the president in the summer of 1990 had been built, trained and equipped to face the Soviet Union in a global conflict. Expectations about mobilization and deployment of reserve component forces were heavily conditioned by planning for the European-based global

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[25]Senator Gary Hart, *Senate Report 94-562*, p. 21.

scenario and by related exercises such as Reforger.[26] For that scenario, the military was expected to proceed directly to full mobilization. Presidential Selected Reserve call-up would occur prior to deployment of significant operational forces, and there would be early declaration of partial mobilization. For the Army, this resulted in expectations about when National Guard combat units, and in particular roundout brigades,[27] would be called. According to one commentator, "There can be little doubt that, in the 17 years that the roundout concept existed prior to August 1990, both active Army and Army National Guard leadership left the impression in public comments and congressional testimony, that the roundout brigades would and could deploy with their parent divisions under all circumstances, without any explicit reference to the time that might elapse between mobilization and deployment."[28] With training readiness levels of units indicating that about 30–40 days[29] would be needed to train before deployment, there was a general expectation, by both active and reserve components, that reserve roundout brigades would be called early and would be deployed.

The degree to which the total force concept had become a reality by the mid-1980s was highlighted by the Army's Deputy Chief of Staff for Operations:

> In a real sense the Army's Active and Reserve Components are now inextricably linked in a total force. . . . These adjustments between the Active and Reserve Components have not followed the traditional patterns of assigning only reinforcing and later deploying support roles to reserve component forces. Under current plans, some reserve units will deploy with the active unit they 'round out,' ahead of other major Active Forces. These reserve units are receiving first-line equipment in

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[26]Statements made by various military leaders in the 1980s about "when" Army roundout brigades would be called can be traced to the expected quick use of partial or full mobilization. For a discussion of remarks by Army leaders that were subject to misinterpretation, including one by General Schwarzkopf when he commanded the 24th Division, see Robert L. Goldich, *The Army's Roundout Concept After the Persian Gulf War,"* Congressional Research Service, October 22, 1991, pp. 16–17.

[27]Roundout as used by the Army is a type of directed training association between active and reserve component units. Roundout RC units bring understructured active units to designated organizational structure as, for example, the third brigade in a division. RC units designated as roundout are assigned a priority for allocation of resources equal to that of the AC [active component] sponsor unit, and roundout units are scheduled to deploy with their AC sponsor, or as soon as possible thereafter, according to supported CINC priorities. *Army Regulation 11-30*, September 1, 1985.

[28]Goldich, op. cit., p. 19.

[29]"The Army National Guard roundout brigades are supposed to be trained and ready so that they can be mobilized and begin deployment in a relatively short period of time—in the case of the 48th Mechanized Brigade, within 30 days from the time they are mobilized. Similar readiness requirements apply to Air Force Reserve and Air National Guard units." Representatives Les Aspin, Beverly Byron, and G.V. (Sonny) Montgomery, "Iraq, Saudi Arabia and the Reserve Components: Missing Lessons for a Future Force Structure," October 15, 1990, p. 6.

accordance with their assigned priority for deployment, using a 'first-to-fight, first-equipped' philosophy.[30]

Regional Conflict

By the time of the Persian Gulf Conflict, the nature of expected conflict had changed from global to regional conflict.[31] In response, the DoD was implementing a new set of planning and operational procedures that would affect priorities for reserve forces.

Theater requirements are set by the field commander in chief and not by the individual services.[32] The responsibility of each service is to fill the CINC requirements with trained and ready units. CINC requirements for forces—as distinct from service desires and doctrine to provide forces—drive planning and execution. "Need" or demand for generic types and numbers of forces to execute a particular OPLAN (operational plan) is determined by the CINC as he sets priorities for deployment into a theater. Recommendation for assignment and deployment of significant operational and support forces to unified and specified commands is made by the services to the Joint Staff. Choice of particular units—active and/or reserve—is a coordinated process; the Secretary of Defense signs the deployment order.[33] The extent to which reserve units might be needed in a given contingency depends on the overall level of need for forces as well as the availability of active forces of similar capability.

In the summer of 1990, completed operational plans did not exist for all regional contingencies,[34] and new expectations about use of reserves had not

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[30]Lt. Gen. Fred K. Mahaffey, "Planning for a Higher Performance Army," *Army*, Vol. 33, No. 10, p. 156.

[31]In the summer of 1990, DoD planning had identified the chief threats to U.S. strategic interests in the Gulf to be "regional rather than global." No longer did plans envision a Soviet incursion through Iran in the context of a larger Soviet aggression that included Western Europe leading to global war. *Conduct of the Persian Gulf War, Final Report to Congress*, Pursuant to Title V of The Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (Public Law 102-25), April 1992, p. D-4.

[32]Department of Defense, *Conduct of the Persian Gulf Conflict, An Interim Report to Congress*, Pursuant to Title V of The Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (Public Law 102-25), July 1991, p. 26-1.

[33]*Unified Action Armed Forces JCS Publication 0-2*, December 1, 1986, and RAND discussions with Joint Staff.

[34]The Southwest Asia contingency plan had been developed in the early 1980s when the world situation was significantly different. That plan anticipated that the 200,000 presidential call-up would occur immediately, that partial mobilization would be declared prior to active units deploying, and that there would be a warning time of at least 30 days in which to prepare for deployment. Once deployment began it would move swiftly with Air Force fighters deploying on the first day followed by a division ready brigade of ground forces from the 82nd Airborne (2,300 troops). Marines would fall-in on ammunition, supplies, and equipment from Marine prepositioned ships from Diego Garcia. The first tanks were scheduled to arrive in the-

developed. The new plan under development for SWA (Southwest Asia) was focused on the defense of the Arabian Peninsula. No final troop list had yet been compiled. The plan also assumed an immediate presidential Selected Reserve call-up and early partial mobilization, which were consistent with other plans and policy for use of the reserve components. The emphasis in the plan was on deterrence.

In July, the Central Command (CENTCOM) completed a command post exercise, *Internal Look 90*, which presented a similar scenario to that which played out and provided a useful starting point for building forces.[35] This computer-based exercise used no actual troops but was able to test key elements of the new OPLAN and refine force requirements. It assumed that Kuwait and Saudi Arabia would be invaded by a "force from the north." Much information was gathered on the deployment of air and ground forces. "Heavy forces were added to what had been, heretofore, a light corps structure."[36] In the exercise, logistics support was to be minimal and the CINC priority for immediate deployment went to combat units.

U.S. Forces Available for ODS/S

When the Total Force Policy was first formulated, the Selected Reserve end-strength was 28 percent of the active and reserve component end-strength. By the time of the Persian Gulf Conflict, it was 36 percent. Figure 2.1 shows that active component end-strength declined in the 1970s but then stabilized after some growth in the initial Reagan years. In contrast, reserve end-strength, especially in the Army where it became 55 percent of end-strength by FY 1990, continued to grow throughout most of the 1980s thereby increasing the relative reliance on reserve forces.

As the Total Force Policy evolved, by the summer of 1990, the active component, particularly the Army, had come to rely heavily on selected reserves and on civilian employees. All parts of the total force played a vital role in ODS/S.

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ater 27 days after deployment began. Deployment would continue for three to four months. Information in this subsection comes primarily from James P. Coyne, *AIRPOWER in the GULF*, Air Force Association, 1992.

[35]Lieutenant General John J. Yeosock, "Army Operations in the Gulf Theater," *Military Review*, September 1991, p. 3.

[36]Lieutenant General John J. Yeosock, "H+100: An Army Comes of Age in the Persian Gulf," *ARMY*, October 1991, p. 45.

Differences Among the Services

Aggregate statistics about active and reserve component forces such as in Figure 2.1 obscure differences among the services and components. As shown in Figure 2.2, in 1990 the Army Selected Reserve components were roughly equal in size to the active Army while the Air, Naval, and Marine reserve components were only about one third, one fourth, and one fifth the size of their active components, respectively. Figure 2.2 also shows the size of the Individual Ready Reserve (IRR)[37] for each component. The Air Force had the smallest proportion of personnel in the IRR while the Marines had only slightly more people in the Selected Reserve than in the IRR.

Size is not the only distinguishing difference. During the 1980s new missions were added to those already in the Selected Reserve and existing mission areas expanded. Training and equipping strategies were put in place.[38] Arrangement for integration with the active forces were implemented. For example, the Marines routinely mixed and matched reserve units with their active counterparts. The Army expanded the roundout concept and other directed training associations. This was done under the presumption of availability of reserve forces—especially for the global scenario.

Demand for reserve forces depended on other forces available as well as the size and type of military operation. For example, Marine Corps policy is to be a "Force in Readiness," and use of reserve support depends on the scope and duration of a contingency. Structure and missions found in the Marine Corps Reserve are almost a mirror of the active Marines. Thus, reserve component units can easily augment and reinforce a Marine Air-Ground Task Force, and the Marines can "use up" the active forces before the reserves need to be called. In contrast, in the Army, over 50 percent of the combat forces and over 67 percent of the aggregate combat support and combat service support units were moved to the reserve component. (In some functions like Civil Affairs and Supply and Service, it is over 95 percent.) Army

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[37]The IRR is a pool of trained individuals who have previously served in active component units or in the Selected Reserve. In particular, those who have served on active duty within the last 12 months are called "RT-12s."

[38]In 1982, Secretary Weinberger had directed that, "equipments should be distributed regardless of component in a manner that ensures organizational integrity, maintenance capability, single generation supply support, and battlefield interoperability. Our early-deploying and employing Guard and Reserve units must have the equipment to perform their mission. Active and Reserve units deploying at the same time should have equal claim on modern equipment inventories." DoD Memorandum, *Priorities for Equipment Procurement and Distribution,* June 21, 1982.

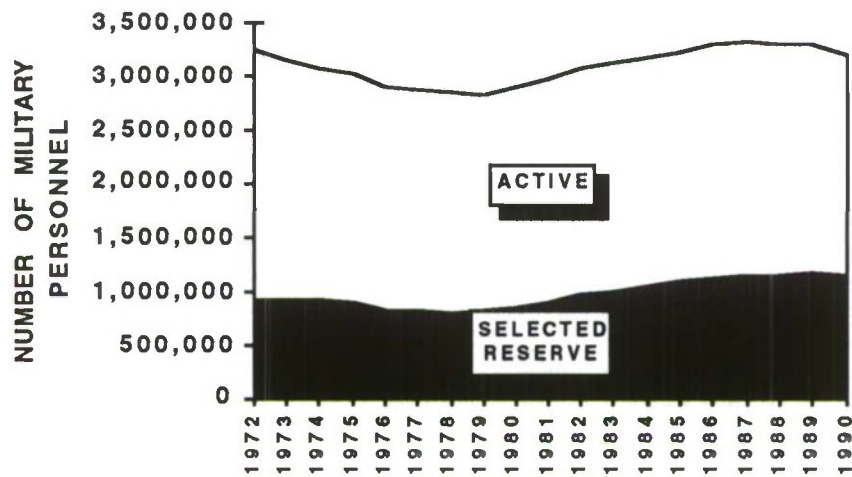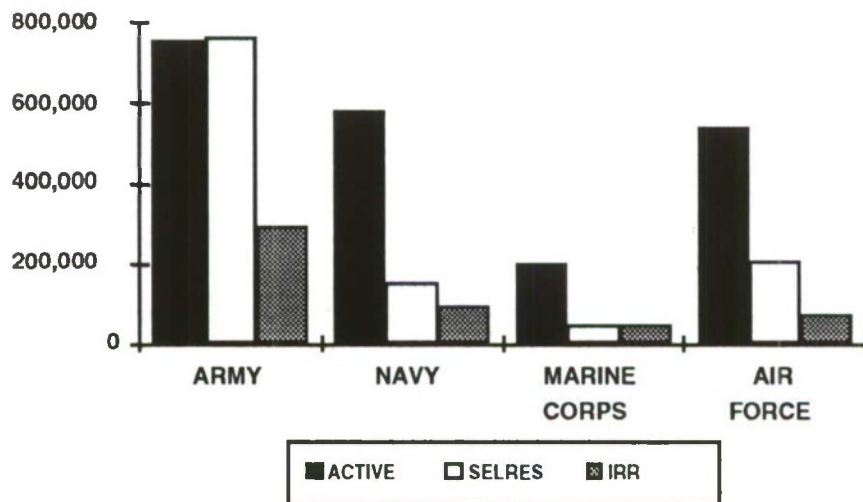Figure 2.1—Total End-Strength (1972–1990) of Active and Selected Reserve

Figure 2.2—Comparison of FY 1990 End-Strength for Active, Selected
Reserve, and IRR by Service

Reserve forces had been particularly sized and structured against the global
war scenario. For any large contingency to include one like the Persian Gulf
Conflict, the Army needed to activate reservists for support very early.

More than 50 percent of Air Force capability in certain areas resided in the Air National Guard (ANG) and Air Force Reserve (AFR). Table 2.2[39] shows the proportional contribution of the Air Reserve Component in specific key areas as of September 30, 1990.

Table 2.2

CONTRIBUTION OF AIR RESERVE COMPONENT

Unit Types	Percent of Total Air Force
Air Rescue/Recovery	74
Tactical Airlift	64
Tactical Reconnaissance	60
Aerial Refueling/Strategic Tankers	25
Aeromedical Evacuation (Aircrews)	97
Strategic Airlift (Associate Crews)	50
Tanker/Cargo (Associate Crews)	43
Aerial Port	71
Engineering Installation	70
Combat Communications	65
Combat Logistics Support Squadrons	59

The services and components also differed greatly on the amount of prior active component experience. As shown in Figure 2.3, this ranged for officers from nearly 90 percent in the U.S. Navy Reserve and U.S. Marine Corps Reserve (USMCR) to 50 percent in the Army National Guard (ARNG). For enlisted personnel, the Navy Reserve and Air Force Reserve had the greatest proportion while the Marine Corps Reserve had the least. Also, in USMCR flying units, half of the maintenance personnel work full time in the unit, and, in Air Reserve Component flying units, approximately one-third of the personnel work full time for the unit.

Military Forces Available

The "decade of investment" in active and reserve component forces had a pay-off in a very robust, well-trained, and modern military structure. In 1990, there were over 2,000,000 active duty people of whom over 1,000,000

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[39]Reserve Forces Policy Board, *Reserve Component Programs, FY 1990*, March 1991, p. 36. Percentages for the first four unit types are based on primary authorized aircraft counts. Crew percentages are based on authorized personnel. Percentages for the last four types are based on unit counts.
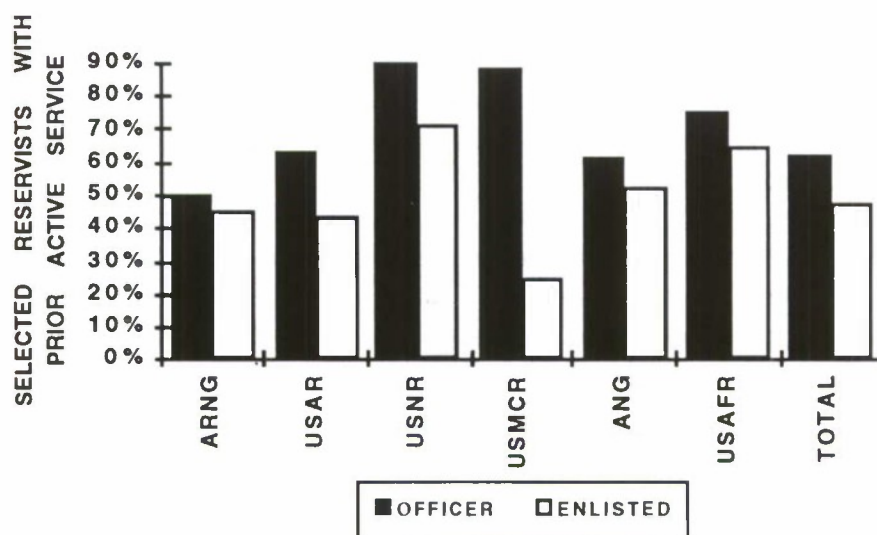
Figure 2.3—Selected Reservists with Prior Active Component Experience[40]

were allocated to the tactical/mobility category.[41] Another 850,000 of 1,100,000 selected reservists were allocated to the same category. Conventional forces were sized, equipped, and positioned to fight with an aim of being able to defeat an attack quickly and decisively.[42] A priority throughout the 1980s was to maintain high levels of readiness supported by operating tempos at levels sufficient to provide challenging training. Conventional land forces included 18 active Army divisions. The Army's reserve component had 10 divisions and seven brigades and five battalions used to round out 9 of the active divisions. The USMC had three active divisions, aircraft wings, and support elements for use in three Marine expeditionary forces, along with one reserve division, aircraft wing, and support elements. Air Force tactical air forces had numbers of aircraft (F-16, F-15, F-117, F-111, F-4, A-10, and A-7) equivalent to more than 36 tactical fighter wings (24 active component and 12 reserve component) each equipped with 72 combat aircraft as well as additional reconnaissance, support, and warning and control aircraft. The Navy maintained 13 active and two reserve carrier air wings composed of a mix of combat and support aircraft. Naval

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[40]Reserve Forces Policy Board (RFPB), *Reserve Component Programs, FY 1990*, March 1991. According to the RFPB, these data are for selected reservists with at least two years prior active component service and were estimated by the respective reserve component.

[41]Department of Defense, *Manpower Requirements Report FY 1992*, February 1991. Tactical/mobility is one of the 14 defense planning and programming categories.

[42]Dick Cheney, *Annual Report to the President and the Congress*, January 1990, p. 3.

forces contained 14 carrier battle groups, two battleship surface action groups, and 10 underway replenishment groups.[43] The availability of these robust active and reserve forces sized for a global conflict allowed *choice* by planners and decisionmakers in sourcing CINC requirements for a regional contingency.

The Total Force Policy provided the president—through a mix of assets to include active, Selected Reserve, Individual Ready Reserve, and retired military—with options for employment of force and the means to get those forces to a theater. Figure 2.4 shows the relative share of reserve and active "combat" forces available to the president in FY 1990. Figure 2.5 shows available airlift and sealift. This mix of assets had originally been developed with the large-scale global contingency in mind. Thus, support from NATO allies was assumed, and European infrastructure was accounted for in the placement of equipment and skills in the active or reserve components.
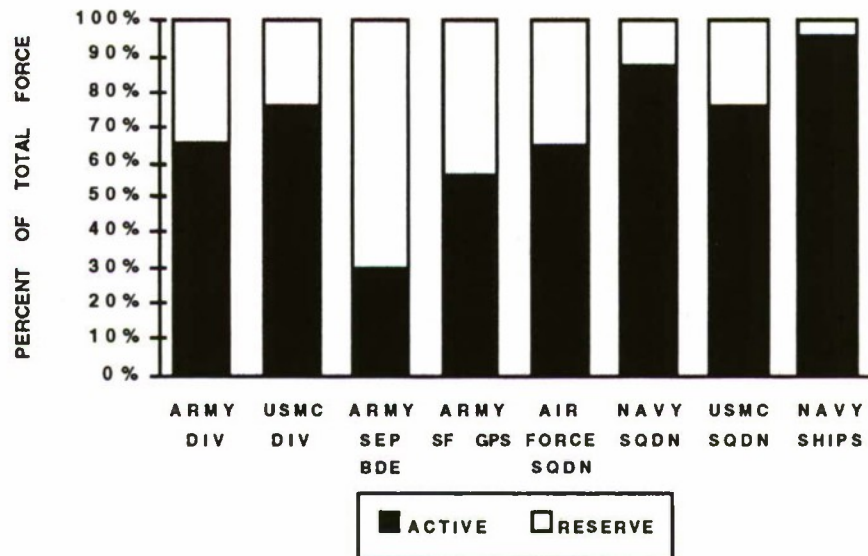
Figure 2.4—General Purpose Forces FY 1990[44]

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[43]Ibid., pp. 9, 36–44.

[44]Dick Cheney, *Annual Report to the President and the Congress*, February 1992. The above data are highlights from the force structure tables. Army roundout brigades are included in the count of divisions. Army separate brigades and special forces (SF) groups are shown separately. Air Force, Navy, and Marine Corps squadrons are attack and fighter aircraft. Navy ships includes strategic, battle, support, and reserve forces ships but not mobilization ships.
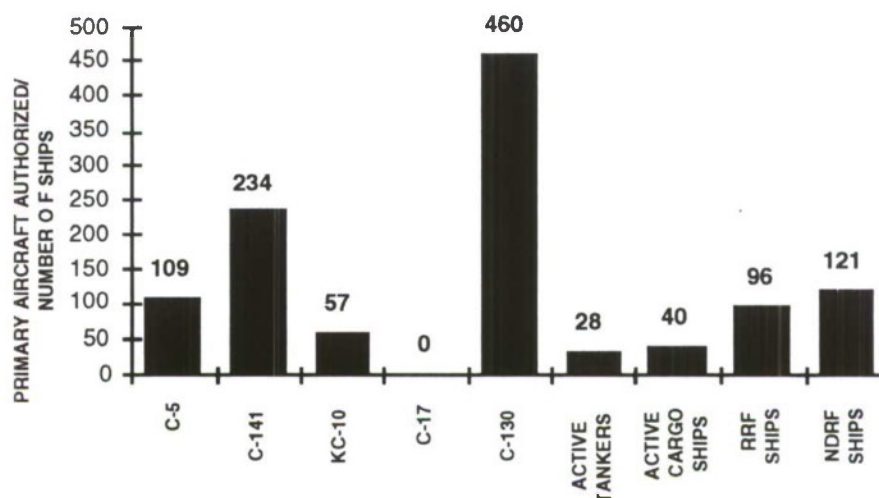
Figure 2.5—Airlift and Sealift FY 1990[45]

The Stage Is Set

On the eve of the Persian Gulf War, the United States had a robust military capability that had been built and rigorously trained for a global war with the Soviet Union. With the threat in Europe greatly reduced and with the defense drawdown only beginning, U.S. active military forces that would have been required to remain in Europe or other geographical areas during regional contingencies, or that would have been disestablished during the drawdown, were available. While one might speculate about the entire Persian Gulf Conflict had the Warsaw Pact still been a military threat, the availability of trained and ready U.S. forces stationed in Europe diminished the "need" for certain types of reserve component forces. In ODS/S, reserve forces will be "called as needed"[46] against regional commander requirements and emerging operational plans while decisionmakers considered the international and domestic political ramifications of making them available through the several authorities.

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[45]Cheney, ibid. Active ships include fast sealift ships, afloat prepositioned ships, and common user ships. RRF is Ready Reserve force and NDRF is national defense reserve fleet.

[46]General Powell used these words in discussing the reserve call-up at Kennebunkport, ME, on August 22, 1990. He repeated this in testimony before the House Budget Committee on February 4, 1992. While reflecting on future use of the reserve components, he reiterated the ODS/S experience by stating, "They'll be called up as they are needed, just as they were in Desert Shield and Desert Storm." In a competing view, the reserve component is equal to the active component when it comes to national security and, especially where the two components are formally affiliated, should expect to be called and used as full partners.

3. Availability of Reserve Component Units and Individuals

This victory "belongs . . . to the regulars, to the reserves, to the National Guard. This victory belongs to the finest fighting force this nation has ever known in its history."[1]

President George Bush

One measure of Total Force Policy effectiveness is that it should make available the requisite numbers and types of forces to the National Command Authority to use in support of military operational objectives. Whether those forces are actually called depends upon the willingness of the president to use the authority provided him by Congress. The decision will reflect political considerations, both international and domestic, as well as considerations about the specific contingency at hand and the total forces available. While pre-crisis planning can help define the options and speed the process, each situation is different and each response will be different.

As Figure 3.1 shows, there were three phases of reserve mobilization in ODS/S: (1) the volunteer period (August 2–22, 1990) when the primary legal authority was Section 672d, (2) the period of Selected Reserve unit activation (August 23, 1990–January 17, 1991) when Section 673b (presidential call-up) was used in three separate and limited increments, and (3) the final period of partial mobilization (January 18, 1991–end of hostilities) when the entire Ready Reserve was available through the use of Section 673. This represented a slow, incremental call-up of 225,000 reservists over seven months. As we saw in Section 2, prior U.S. planning assumed that the Selected Reserve would be available in a matter of days and early declaration of partial mobilization.

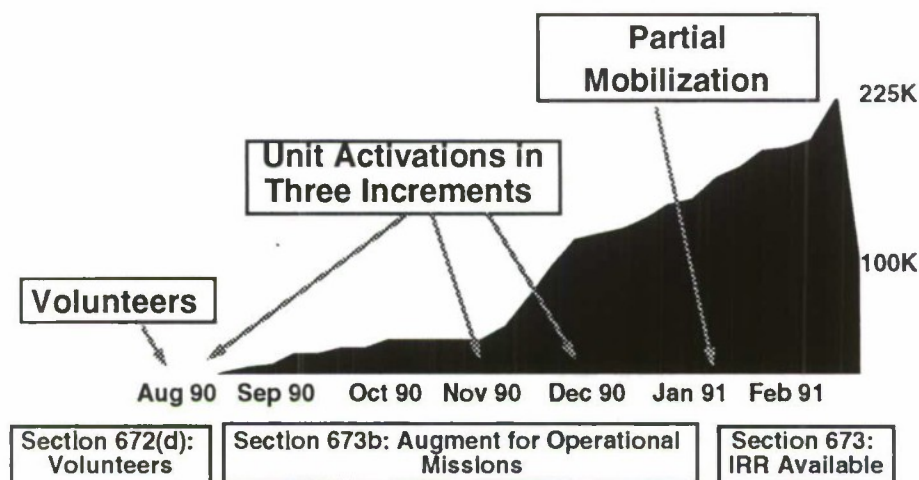[1]Address to Congress, March 6, 1991.

Figure 3.1—Phases of Reserve Mobilization in ODS/S

This section is organized around these three phases of the mobilization. It describes how reserve units and individuals were called and used and highlights problems that developed. In Section 4, we discuss readiness of those units and individuals. In Section 5, we discuss the conclusions, implications, and lessons for the future concerning availability and readiness.

The Volunteer Period—August 2 to August 21[2]

On August 2, 1990, Iraq invaded Kuwait with 100,000 troops. The United Nations Security Council responded by passing Resolution 660, which called for Iraq's immediate and unconditional withdrawal from Kuwait. The United States declared a national emergency to freeze Iraqi assets,[3] imposed an almost total embargo on Iraq, sought withdrawal of Iraqi troops diplomatically, and asked other countries for collective action.

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[2]Material in this section not otherwise cited came from several sources including two classified publications not available for public release: *Project AIR FORCE Assessment of Operation Desert Shield, Volume 1* (RAND R-4147-AF, March 1992) and *Volume 2 The Buildup of Combat Power—Technical Appendices* (RAND, N-3427-AF, June 1992); and James P. Coyne, *AIRPOWER in the GULF*, Air Force Association, 1992.

[3]Executive Order Number 12722, Blocking Iraqi Government Property and Prohibiting Transactions with Iraq, August 2, 1990. This executive order declared a national emergency to address the threat to the national security and foreign policy of the United States posed by the invasion of Kuwait by Iraq. The National Emergencies Act (50 U.S.C., Section 1631) stipulates that the president must specify in the declaration of the national emergency or in a subsequent executive order the provisions of law under which he proposes to act. Executive Order Number 12723 (August 3, 1990) froze Kuwaiti assets. Additional steps were taken in Executive Orders 12724 and 12725 on August 9, 1990, after UN Resolution 661 passed.

On August 5, 1990, President Bush said, "This will not stand—this aggression against Kuwait."[4] Secretary of Defense, Richard Cheney, traveled to Saudi Arabia to arrange for base access and convince the Saudis of U.S. determination to confront Iraq. On August 7, 1990, the President directed the deployment of U.S. forces to Southwest Asia.

Reserve Personnel Were Needed Early in ODS/S, but Only Volunteers Were Available

Even before the decision was made to send military forces into the Persian Gulf region, it was clear that reserve forces of certain kinds would be needed quickly. For the Air Force, 64 percent of the tactical airlift and half of the strategic airlift reside in the Air Reserve Component (ARC).[5] To deploy large numbers of troops, these forces were needed quickly from the reserves. Much of the air refueling capability and maintenance skills are also found in the reserves. These too were needed in early August.

The Army reserve components also contain many skills needed early in a contingency to help deploying troops. Support for port operations resides primarily in the Army Reserve. The Army reserve components include 71 percent of the military police companies and 69 percent of the military intelligence units. Water purification and communications skills are found principally in the reserves. All of these skills were needed in August to help deploy active units. Reservists were also needed in anticipation of a reserve activation to help with unit preparations.

Ad Hoc Solutions Were Developed to Obtain Critical Skills

Prior to the presidential call-up of reserve units to augment active forces (on August 22), there were only two ways to tap these reserve skills—creative use of reserve training time and volunteers. Reservists on annual training tours were used in support of ODS.[6] In the Army Reserve, the 1185th Transportation Terminal Unit had been scheduled for annual training between August 12 and August 25, in Wilmington, NC. Its annual training was

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[4] *The New York Times*, Sunday, August 5, 1990.

[5] See Table 2.2.

[6] Reserve component personnel routinely complete annual tours in central America in support of U.S. operations there. Such personnel were used in Operation Just Cause, the December 1989 U.S. military operation in Panama, as well.

rescheduled to the Port of Savannah where it was subsequently mobilized on August 25, 1990.

A similar story unfolded at the Port of Jacksonville, where there were no soldiers or DoD civilians to handle the embarkation of the 101st Airborne Division scheduled to arrive on August 12th. A pickup crew of active Army personnel, civilians, and reservists on drill weekends, or on annual training tours, or as volunteers worked from August 12 to 27 to deploy the 101st. On August 27, 1990, when the 1181st Transportation Terminal Unit was activated for support at the Port of Jacksonville, 20 of its 75 members were already working as volunteers.

Volunteers Came in Large Numbers

The large number of reservists who actively tried to volunteer for duty in ODS was unprecedented and unanticipated. Reserve units across the country reported that their phones were busy with offers from reservists who wanted to support the military action. In the Air Reserve Component from early August through October 31, 1990, the pool of those willing to volunteer was about 25,000, double the number allowed to volunteer for active duty (12,000). By August 22, 10,500 reserve volunteers were serving on active duty. They flew 42 percent of the strategic airlift and 33 percent of the refueling missions. ARC volunteers moved 7 million tons of cargo and 8,150 passengers.

The Army reserve components had less experience using volunteers. Many reservists simply showed up at units to help with tasks necessary to ready the unit for mobilization. Reserve volunteers opened ports, received and shipped equipment, and even deployed to help establish strategic communications as well as to provide other needs, such as water purification specialists and Arabic linguists.

Problems with Using Volunteers

Reserve units could not function without the large number of volunteer hours contributed by their members routinely in peacetime, and this willingness was again seen during the Persian Gulf Conflict. However, there were some problems associated with using volunteers.

One problem is the lack of explicit policies and plans for using volunteers. Title 10 U.S.C., Section 672(d) allows a Service Secretary to activate individuals with their consent and (in the case of guardsmen) the consent of the

governor. In peacetime, the Air Force routinely exercised this authority to use volunteer reservists for airlift and refueling missions, as well as to support those missions. Thus, the Air Force was familiar with procedures associated with the use of volunteers, and they view voluntarism as a force expansion option, in spite of the fact that they had no formal policies for the use of volunteers.[7] However, the Army is not accustomed to using volunteers and had no formal plans for their use at the outset of ODS/S. Thus, the use of volunteers may not have been as effective as possible.

For long deployments, voluntarism can be expected to decrease as the pool of those able to volunteer is depleted. In ODS/S during December 1990 and January 1991, volunteers were also being discouraged, and most were placed in an involuntary status in anticipation of hostilities. Another problem is that those who volunteered were not always those who were most needed. Consequently, voluntarism cannot be counted on to fill critical needs in the absence of a call-up. Further, when individuals volunteer, their units may lack critical skills and have degraded readiness if later mobilized.

Selected Reserve Unit Period—August 22, 1990– January 17, 1991

Through the month of August, the military crisis continued. On August 4, the Navy ordered the USS Dwight D. Eisenhower carrier battle group to move from the Mediterranean Sea to the Red Sea and the USS Independence and its support ships from the Indian Ocean to the Arabian Sea. On August 7, President Bush directed deployment of forces to Southwest Asia. This included Air Force F-15 fighters, the 82nd Airborne Division and maritime prepositioning ships. On August 8, the U.S. combat forces began arriving in Saudi Arabia.

Between August 2 and August 22, the Chairman of the Joint Chiefs of Staff (CJCS), Commander in Chief of Central Command (CINCCENT), and the services conducted crisis planning for deployment of active forces and for mobilization and deployment of reserve forces. Intense sessions led to plans that were later scrapped or combined with other plans in an evolutionary fashion. During this period, it became apparent that the active forces would need reserve support units in the theater of operations, for back-fill in the Continental United States (CONUS) and other theaters, and for essential mis-

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[7]Air Force Regulation 28-5, which sets forth procedures for using volunteers, was a draft regulation at the time of ODS/S. Explicit guidance to follow this draft regulation was issued at the outset of ODS/S.

sions no longer manned by active forces. Partial mobilization was perceived to be a major political step. The Secretary of Defense, the CJCS, and CINCCENT had briefed the president in mid-August on the clear need to use the reserves. They told him at that time that they were planning this and would return with a request. This was done at Kennebunkport, ME, on August 22, 1990. The DoD requested what was needed at the time, and the president approved it and announced it that day.[8] On August 22, the president implemented Section 673b for the first time since its enactment.[9] The Chairman of the Joint Chiefs of Staff, General Powell, announced that "Selected units will be called up as they are needed and when they are needed."[10] This issue of need will be one of the primary considerations in selecting reserve forces for mobilization and deployment in the Persian Gulf Conflict. On the next day, Secretary Cheney authorized the initial call-up of Selected Reserve units. But Section 673b was not implemented the way most military planners had envisioned that it would be used.

The Initial Section 673b Call-up

The emphasis in the August 23 call-up was on *minimum essential augmentation*. The goal was to deter the Iraqi forces while "buying" time to give the sanctions against Iraq time to have a significant impact. Figure 3.2 graphically illustrates the provisions of the initial activation of reserves. The full 200,000 call-up authority was not used at once because there was not a need to do so.[11] A total of 48,800 reservists were authorized for activation including 25,000 from the Army National Guard (ARNG) and U.S. Army Reserve (USAR), 14,500 from the Air Force Reserve and Air National Guard, 6,300 from the U.S. Navy Reserve (USNR), and 3,000 from the U.S. Marine Corps Reserve. Reserve units called up under Section 673b were activated for a period of only 90 days. (An additional 90 days for each unit was avail-

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[8] RAND discussions with CJCS, October 9, 1992.

[9] Executive Order Number 12727, August 22, 1990. At the Wednesday, August 22, press conference in Kennebunkport, ME, at which Mr. Cheney and General Powell also were present, the president included two sentences about reserves in his two page opening statement. "As our forces continue to arrive they can look forward to the support of the finest Reserve components in the world. We are activating those special categories of Reservists that are essential to completing our mission." Shortly after his election, President Bush had stated "I will continue to adhere to and emphasize the Total Force Policy. Consequently, the National Guard and the other Reserve forces will continue to be relied upon as full partners of the active duty forces in time of need." Reserve Forces Policy Board, *Reserve Component Programs FY 1988*, February 22, 1989, p. i.

[10] Press briefing by Secretary of Defense Dick Cheney and Chairman of the Joint Chiefs of Staff General Colin Powell, August 22, 1990.

[11] RAND discussions with CJCS, October 9, 1992.
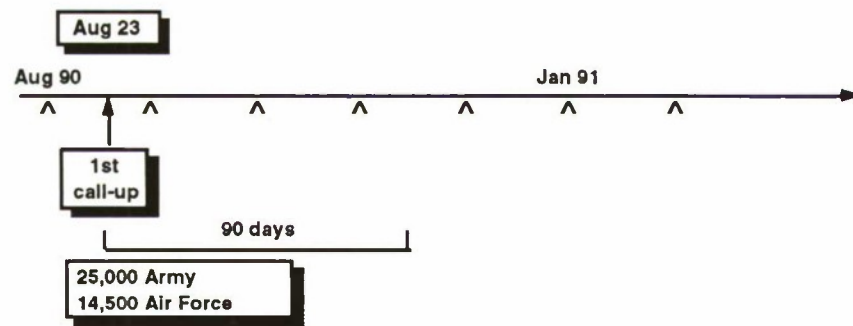
**Figure 3.2—Initial Call-up of Army and Air Force Selected Reserves
Augmented Active Forces in ODS/S**

able at the discretion of the president.) Thus, units activated at the end of August were initially committed only until the end of November.

The types of units called reflected the CINC's priority and theater requirements to establish an initial deterrent force of combat units with lift-constrained minimal support structure. This guidance translated into plans for Selected Reserve units from the Army that were primarily combat support or combat service support (CS/CSS) that could assist in the deployment of the active combat forces already under way, and only a small number of specific CS/CSS units with critical skills were deployed to SWA. The Air Reserve Component provided CENTCOM staff augmentation, capabilities for expansion of the critically needed strategic airlift, and the logistics/maintenance support for refueling and high-priority in theater support.

Executing the Initial Call-up

Normally, "sourcing" an OPLAN, i.e., providing required units, would have been accomplished during the deliberate planning process that is part of the Joint Operations Planning and Execution System (JOPES). When the crisis began, planning for SWA was incomplete and the Joint Staff, Central Command, the services, and other CINCs were forced to improvise, using the incomplete SWA OPLAN 1002-90.[12] The lack of both a Time Phased Force Deployment List (TPFDL, which detailed specific units) and Time

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[12]Military OPLANS were prepared for each theater of potential operations assigned to the warfighting CINCs. OPLANS were numbered for easy reference with each command assigned a block of numbers, in this case CINCCENT was given 1000–1999, and each plan was dated by the year of its development. OPLAN 1002-90 was therefore recognized as a CINCCENT plan developed in 1990.

Phased Force Deployment Data (TPFDD, which provided the detailed lift requirements for units) created problems that resulted in an *ad hoc* process to select required units for deployment and assign appropriate lift. Similarly, the selection of specific reserve units was not based upon a pre-crisis plan but was developed in an *ad hoc* way that required the participation of many players.

The Joint Staff put in place a process that was characterized as "turbulent" because of frequent changes in requirements and allocation of available overseas transportation.[13] The process generally followed this sequence: (1) CINCCENT identified a requirement for a type of unit or capability and its required arrival time. (2) The Joint Staff and services identified combat units to meet the requirement. (3) The Unified or Specified Command with control of those units, in coordination with appropriate Service Headquarters, identified required active and reserve component support units. (4) The Service Headquarters reviewed and/or approved the choice of reserve units, after prior consultation with the appropriate reserve headquarters staff concerning the readiness status of that unit. (5) TRANSCOM (Transportation Command) would then determine what appropriate lift was available and assign deployment sites and dates that met CINCCENT arrival requirements.[14]

Army Selection Process

The Army staff, working with the U.S. Forces Command (FORSCOM)—the CONUS-supporting Specified Command—merged FORSCOM's draft troop list with one that was developed by the Army's Concepts Analysis Agency, using their computer model called "FASTALS." This model provided an initial list of over 88,000 reserve soldiers that were "doctrinally" needed to be in theater. The Secretary of the Army was briefed on the Army's plan for an initial call-up of 88,000. This was his guidance on the plan:

- It included too many reservists.

- This was not a unilateral Army response.

- Deterrence was the goal, not offensive action.

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[13]RAND discussions with National Guard Bureau (NGB) staff and House Armed Services Committee staff discussions with NGB staff planner.

[14]While the CINC requirements were the "drivers," the CINC sometimes accepted suggestions from the services. Adjustments had to be made from doctrinal requirements. RAND discussions with CJCS, October 9, 1992.

- Reserve combat forces were not needed.
- Pick units that are the minimum necessary.[15]

By mid-August, the list was ordered according to the CINCCENT requirements and priorities, and the most critical units were identified. This set of critical support units, totaling about 25,000, was authorized by the Secretary of Defense on August 23 as the Army's share of an initial 48,800 call-up.

Specific units were selected on the basis of three criteria:[16] They had to meet the CINCCENT requirement for a type unit; they had to meet readiness deployment standards; and whenever possible, they were to be associated with an active unit that was already scheduled for deployment, e.g., the two units should be "CAPSTONE" aligned.[17]

The most important quantitative measure of a unit's readiness was the "C-rating" under the Status of Resources and Training System (SORTS), and this was the dominant criterion to initially choose among units. For example, after FORSCOM used the SORTS information to identify a candidate Army National Guard unit, the National Guard Bureau would substantiate unit capability by also reviewing the most recent unit status report (typically the July 1990 report) and then directly coordinate via telephone with Continental U.S. Army (CONUSA), the readiness group, the state adjutant general, and the unit itself to obtain a current basis for decision. Throughout the selection process, the Army and FORSCOM staff consulted informally[18] with Army National Guard, Army Reserve Commands (ARCOMs), Army Readiness Groups and state adjutant generals to obtain information on the status of specific units. During this process, some 10 percent of units initially identified by FORSCOM were replaced.[19]

CAPSTONE alignment was clearly secondary. "The exigencies of the Desert Shield deployment, to include the political decision to incrementally integrate reserve components, precluded the Army from exercising its estab-

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[15]RAND discussions with Army planner.

[16]RAND and HASC discussions with DCSOPS (Deputy Chief of Staff for Operations) planners.

[17]CAPSTONE is an Army program to align active and reserve units that in a major contingency plan would deploy together in order that the units might start to work together in peacetime. CAPSTONE is further discussed in the next section.

[18]In its own mobilization study, the Army stated: "What enabled the Army to plan for and execute ODS/S was the secure telephone unit (STU) III, video teleconferencing (VTC), telephone facsimile devices (FAXs), and hard work." *IAMS*, p. G-1-6.

[19]RAND and HASC discussions with NGB planners.

lished CAPSTONE alignments."[20] OPLAN 1002-90 was not fully developed, and up-to-date associations did not exist. Only 37 percent of ARNG units that had been CAPSTONE aligned for Southwest Asia were federalized. This substitution was necessary because the requirements of the new OPLAN for SWA had changed, and many of the previously CAPSTONE-aligned units had lower readiness than units selected to deploy. CAPSTONE alignments from older existing OPLANs were used where feasible to provide some association between deployed active and reserve units.[21]

This process of selecting units also allowed some regional balancing by states. The National Guard Bureau tracked where units came from, and if it became a choice between equally capable units, regional balance was a deciding factor. However, readiness was never intentionally compromised to achieve balancing.[22]

Failure to Call Army Roundout Brigades Sparked Controversy

While the initial 88,000 list developed by Army Headquarters and FORSCOM included the ARNG roundout brigades associated with the active Army divisions that were deployed to the Persian Gulf, the first call-up did not include any combat forces because, (1) the CINC's priorities necessitated that the full 25,000 soldiers be consumed in critical Combat Support/Combat Service Support units, which were required to support the deployment of active units or had unique capabilities needed immediately in theater to support the deployed forces and (2) the Secretary of Defense had precluded the Army from using the initial call-up for reserve combat units. When it became known that this initial list did not contain any reserve component combat units, Congress reacted.[23]

On September 6, 1990, the Committee on Armed Services, House of Representatives, sent a letter to the Secretary of Defense expressing concern

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[20]LTG J. H. Binford Peay, *Statement before the Subcommittee on Defense Policy Committee on Armed Services House of Representatives*, May 5, 1992.

[21]"Prior to Operations Desert Shield and Desert Storm, approximately 75 percent of Third U.S. Army major subordinate commands were CAPSTONED RC units. The primary CAPSTONE alignments existed for global conflict against another enemy in a different area of the world. At the time Operation Desert Shield commenced, there was no current sourced OPLAN or CAPSTONE for operations in that specific theater. However, FORSCOM considered existing CAPSTONE alignments in selecting units for deployment." *IAMS*, p. II-8.

[22]RAND and HASC discussions with NGB planners.

[23]National Guard Bureau, *Army National Guard After Action Report Operation Desert Shield Operation Desert Storm*, June 1991, p. 6.

over the decision not to mobilize Army combat units. Secretary Cheney responded on September 18:

> To date, I have not authorized the call-up of (Reserve) Army combat units for Operation DESERT SHIELD for two reasons. First, my senior military advisers have not advised me that the call-up of such units is necessary at this time. Secondly, the statutory time limits on the use of Selected Reserve units imposes artificial constraints on their employment. That we have not called up Selected Reserve combat units thus far in no way reflects adversely upon those units, which generally are well-manned and well-equipped thanks to the strong support that Congress and the Executive Branch have given to this element of the Total Force for the past decade.[24]

The Army also noted that given the post-mobilization "training . . . such organizations [the roundout brigades] require, the cost effective feature of these forces which makes them a viable structure alternative in peacetime is reversed upon call-up when their costs for activation, deployment, and stand-down are for so little productive time and when there are active units readily available."[25]

The Secretary of Defense's initial decision and response to the Congress sparked a continuing debate. Members of the Army National Guard expressed concern that their expectations of being mobilized and deployed with their active-component parent division had not been met. Their concerns were seconded in Congress:

> The men and women in our National Guard and reserve units work hard to serve their country. The suggestion, unintended or not, that their work is neither fully appreciated or really needed in time of hostilities would have a disastrous influence on morale and performance. The failure to make greater use of reserve units in this crisis raises the broader question of when—and even whether—they would be used in the future. In Operation Desert Shield, the Department of Defense has had a unique opportunity to test the reserve system—including combat, combat support, and combat service support units—as part of the Total Force. To this point [October 1990] the Pentagon has chosen not to do so. . . . If the reserve component roundout units are not to be used, or are deemed unusable, when a short-notice war appears possible, then the viability of the whole roundout concept may be considered suspect. This would

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[24] Idem.

[25] Desert Shield Information Paper, September 14, 1990, provided to RAND.

carry profound implications for the organization of the Armed Forces of the United States in the future.[26]

Air Force Selection Process

The Air Force also used SORTS as the basic criterion[27] but employed a slightly different decision process for selecting units. In general, the Air Staff validated requirements for unit types and for deployment time, while the "gaining commands" (e.g., Strategic Air Command (SAC), TRANSCOM, or Air Force Major Commands such as Tactical Air Command (TAC)) selected the specific units to be activated. All active and reserve Air Force units are resourced and rated at a C1 (ready to perform full wartime mission) or C2 (ready to perform bulk of wartime mission) levels. Thus, readiness was not a problem, and most units were available to deploy within 48 to 72 hours of notification.

As a general rule, the Air Force tried to meet requirements first with active units, then reserve units. The Air Force decentralized the selection process by functional area (tankers, tactical fighters, support units, etc.)—the head-quarters only monitored and did not approve the selection of specific units. Each Air Force Major Command (MAJCOM) had Air National Guard/Air Force Reserve advisors who had information about the readiness and status of specific reserve component units and assisted in selecting particular units.

Initially, between August 2 and 6, the Air Force tried to use the Rapid Reaction Plan; when that proved to be unworkable, they changed to draft OPLAN 1002-90.[28] As late as August 14, the Air Staff had no intent to activate reserve units early. However, as the crisis continued to develop, the requirements for reserve component units grew, and by August 21 a requirement of between 38,000 to 45,000 was recognized, with more than half being for airlift. The Air Force's share of the initial call-up was 14,500.

Selection of specific reserve units to be mobilized was based upon the CINCCENT requirements and priorities. MAJCOMs considered conversion

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[26]Aspin, Byron, Montgomery, op. cit., pp. 6–7.

[27]Memo: Air Force Reserve Task Responses from RAND meeting, 18 March 1992, p. 2, attachment 1.

[28]Y'Blood, William T., *The Eagle and the Scorpion, the USAF and the Desert Shield First-phase Deployment, 7 August–8 November 1990*, Center for Air Force History.

status[29] and compatibility of unit equipment with assets in the theater to insure the maintainability of the equipment. In one example, an A-10 squadron without Low Altitude Safety and Targeting Enhancement (LASTE) equipment was called first because the LASTE equipment was not supported in the theater. In addition, consideration was also given to the amount of previous combat, length of equipment experience, Maverick capability, maintenance schedules, and Operational Readiness Inspection (ORI) evaluations and currency to rank order reserve units.

The Second Call-up of Selected Reserve Units

Throughout September and October, events in the Persian Gulf continued to escalate. The United Nations and the member nations of the forming coalition that opposed Iraq's aggression in Kuwait continued unsuccessful diplomatic and economic pressures to achieve a return of Kuwait to the pre-invasion status quo. At the same time, coalition forces were continuing to grow in strength on the Arabian Peninsula. However, it became evident that Iraq was continuing to reinforce its ground forces committed to the Kuwait theater and was persecuting the Kuwaiti people without restraint.

In response, the United States took specific action to give the coalition a combined arms offensive capability. On November 5, Congress temporarily amended Section 673b[30] to allow Selected Reserve combat units to serve for 180 days with a possible extension of another 180 days, removing one of Secretary Cheney's stated reasons for not calling Army National Guard combat brigades. On November 8, the president announced that he intended to provide CINCCENT with a combined arms offensive capability by deploying additional reinforcements from Europe and the United States, most notably the VII Corps, which the changing situation in Europe made more available. At the same time, the Secretary of Defense announced that roundout brigades would be called and trained to active component standards before they would be deployed. As shown in Figure 3.3, on November 13 the president authorized the extension of the call-up of the Selected Reserve units to a total of 180 days.[31] On the next day, the Secretary of Defense raised the ceil-

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[29]If a unit was not combat ready due to conversion or other problems, it was not considered for mobilization. Memo: Air Force Reserve Task Responses from RAND meeting, 18 March 1992.

[30]Section 8132 of the Department of Defense Appropriations Act, 1991 (P.L. 101-511, approved November 5, 1990).

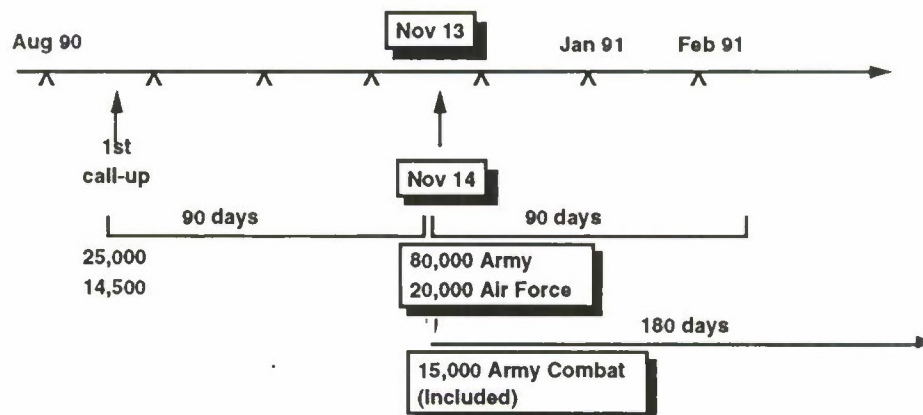[31]Executive Order Number 12733, November 13, 1990.

Figure 3.3—In the Second Incremental Call-up in ODS/S,
Cumulative Personnel Authorizations Increased and
Length of Service Was Extended

ing on total Selected Reserves to 125,000 and authorized the Army to mobilize the ARNG combat brigades.

The Army, USMC, and Air Force each activated reserve component combat units. The Army mobilized three ARNG roundout brigades and two field artillery brigades. The roundout brigades entered into a period of extended post-mobilization training. The artillery units were scheduled for deployment in late December and early January. The Air Force activated three Air Reserve Component combat squadrons (two Air National Guard F-16 and one Air Force Reserve A-10) to "demonstrate the Total Force concept"[32] in ODS/S. No post-mobilization validation or significant additional training was required. The USMC called up key combat elements of the 4th (Reserve) Marine Division and Aircraft Wing, which included infantry, artillery, and tank units to augment forces already deployed.

The Third Call-up of Selected Reserve Units

The United Nations Security Council passed nine resolutions between August and November, 1990, including UN Resolution 678 authorizing the use of "all necessary means" to remove Iraqi forces if Iraq did not withdraw

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[32]RAND discussions with senior Air Force leadership.

from Kuwait by January 15, 1991. By the end of November, the plans were complete for added reserve units to provide CS/CSS for the Army reinforcing corps from Europe and for additional theater-level support. The Secretary of Defense authorized a third call-up under the provisions of Section 673b on December 1. This brought the number of reservists authorized to be on active duty to 188,000: 115,000 soldiers, 20,000 airmen, 30,000 sailors, and 23,000 marines. All of these units were called for a full 180-day period.

Figure 3.4 graphically displays the activation of Selected Reserve units under all three call-ups. The increased need for Army reserve component support units can clearly be seen because the August authorization of 25,000 troops was increased by a factor of 3.5 by December to 115,000. Air Reserve Component units were needed early for airlift operations. Their initial call-up of 14,500 reservists was increased by only one-third in November and not increased at all in December.

Each service activated different proportions of its Selected Reserve during the Persian Gulf Conflict as seen in Figure 3.5. The Marine Corps called the largest percentage, but most of the activations occurred after November. The Naval Reserve had less than 10 percent of its personnel activated. While the overall percentage for the Army was less than 20 percent, the over 125,000 selected reservists activated for ODS/S were the majority of all the reserves activated as of February 24, 1991.[33]
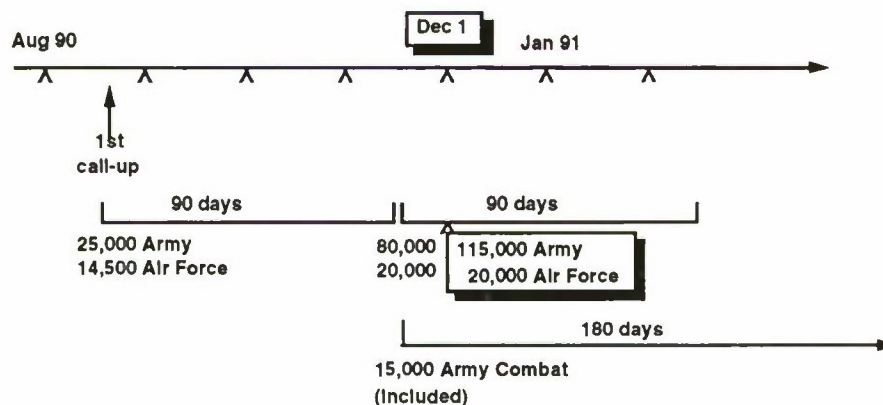

Figure 3.4—The Final Cumulative Increase in Selected Reserve Under Title 10 U.S.C., Section 673b in ODS/S Occurred on December 1, 1990

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[33] DoD, *Conduct of the Persian Gulf War*, p. H-21.
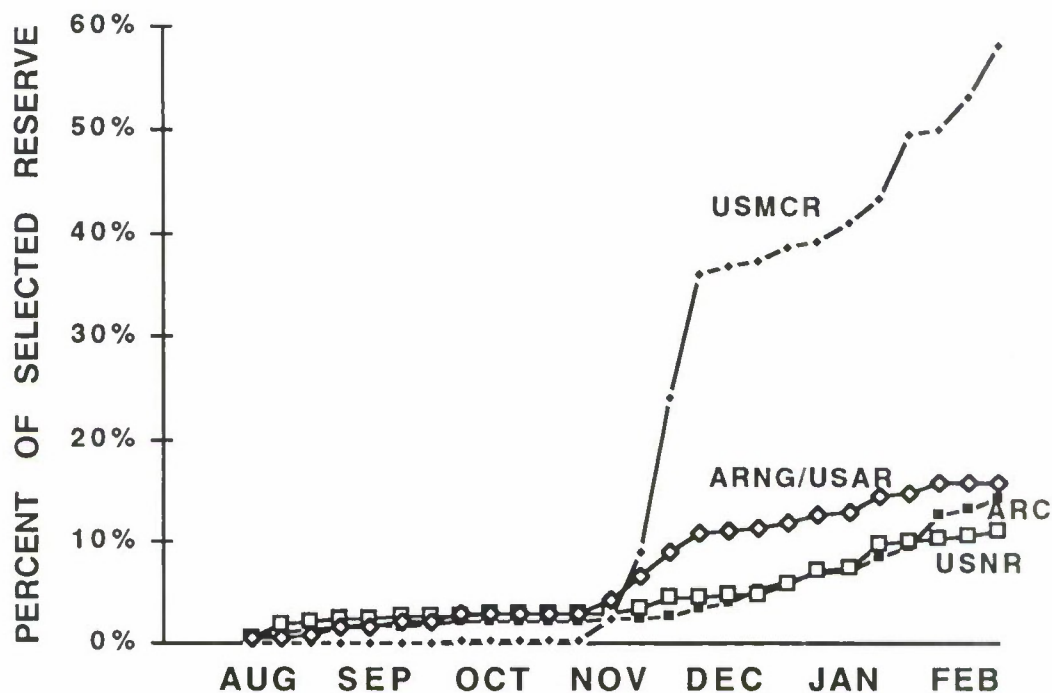
Figure 3.5—Selected Reservists Activated in ODS/S as a Percent of the
FY 1990 Selected Reserve Strength

Problems During the Period of Selected Reserve Unit Activation

Reviewing the five-month period during Operation Desert Shield when the reserve call-up was based on the authority in Title 10 U.S.C., Section 673b, it appears that the law was used as intended to access needed reserve forces while maintaining political and diplomatic leverage to resolve the crisis via other means. Further, the reserves were available and reported promptly when called to duty. However, several problems did emerge:

First, the lack of a validated OPLAN caused planners many problems. For example, Army reserve component units were deployed through an *ad hoc* process that was not based on pre-existing associations with active units.

This required that new relationships be forged in the tense environment of contingency planning and execution.[34]

Second, plans were based on the assumption that presidential Selected Reserve call-up would take place at the beginning of a crisis. The phased call-up of reserve units, as well as the restriction of how many could be activated, affected the deployment and organization of forces in the theater. Some reserve units that could have been used for logistics in early August were not available, so active duty personnel assumed the role that the reservists would have played, e.g., the Army Support Command (SUPCOM) was formed to replace the reserve 377th Theater Army Area Command (TAACOM), which was not called up. In the Air Force, the only Air Force Reserve fighter unit (926TFG/706TFS) to participate in combat operations noted that it was allowed only a minimum manning for deployment. As a result, they left some of their administrative staff at home and assumed that intelligence personnel could perform both intelligence and administrative functions. Once in theater, the intelligence personnel were reassigned requiring the unit to seek administrative expertise through other means.[35]

Third, by not moving quickly to partial mobilization, the call-up did not give planners access to individual reservists in the IRR. Constrained resources result in reserve units, particularly in the Army, that are frequently not authorized their full wartime strength requirement. Additionally, members of reserve units who have not completed basic training are not deployable. Thus, plans called for units to "cross-level" personnel by taking people from the IRR. In ODS/S, the IRR was not available until January 18—long after many reserve units had mobilized and deployed. Thus, for those units that were understrength and needed additional personnel prior to deployment, added strength before mobilization came from other Selected Reserve units and individuals and after mobilization from active personnel. Cross-leveling in this fashion allowed some units to deploy but degraded the readiness of remaining units. Other understrength units were deployed at the lower manning levels consistent with minimum deployment criteria.

Fourth, Section 673b specifically states that the activation of Selected Reserves is by *unit*. Prior to ODS/S the administrative interpretation of "unit" was commonly taken to be any organization possessing a unit identi-

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[34]The Army National Guard believes that when CAPSTONE relationships were preserved in ODS/S, the ANG units were able to perform their missions as planned and the integration of active and reserve units was accomplished with greater ease than when such relationships were not followed. RAND discussions with senior Army National Guard personnel.

[35]926TFG/706TFS, *Operation Desert Shield/Storm After-Action Report*, August 17, 1991.

fication code (UIC). But during the Persian Gulf Conflict, the strict limit on the number of activated reservists and the provision that only units could be activated caused services to alter their pre-ODS/S mobilization plans. A unit was interpreted as any collection of two or more with a common mission. This definition, consistent with the original Section 673b legislation but not necessarily with military administrative practice, gave the services much greater flexibility but at the price of losing a degree of control over unit integrity.

The Army initiated use of a derivative UIC that gave them access to a selected portion of the personnel assigned to a unit. This work around was necessary to structure the units so that only essential personnel were activated. Forming derivative UICs allowed the activation of only those personnel in units who were actually needed, i.e., surgeons not psychiatrists or Arabic linguists not Slavic linguists. However, administrative problems were also created because personnel systems were not flexible enough to accommodate the new derivative UICs.[36]

The Air Force used UTCs, which were much more flexible than UICs in obtaining portions of units. Problems occurred when units lost members to other units and then were activated. In its evaluation of the Persian Gulf War, DoD noted that, "Personnel in derivation [sic] units appear to have taken longer to integrate into the Active force and were, in general, less satisfied with terms of their service."[37]

Fifth, there was a great deal of confusion about why some reserve combat units were called and others were not called. General Powell had stated on August 22 that units would be called as needed. This "call as needed" model is not necessarily the only one. In a competing view, the reserve component is as equal to the active component when it comes to national military need and, especially where the two components are formally affiliated, should expect to be called and used.[38] The different views intensified long-standing animosities between active and reserve personnel and resulted in political tension between the administration and Congress. Reserve members were

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[36]The Army Reserve Components formed "derivative UICs" and the Air Force Reserve Components formed UTCs (Unit Type Codes) to identify portions of units that were to be mobilized.

[37]DoD, *Conduct of the Persian Gulf War*, p. H-12.

[38]"The Total Force Policy was designed to provide a cost effective sustaining force and to secure political consensus and public support for any major military action largely through integrating the National Guard and Reserve in all aspects of the active force. . . . When called, the National Guard was there and was ready; but in several instances, the call did not come or came too late." National Guard Association of the United States, *1991 Legislative Action Plan*, pp. 3–4.

convinced that they were being discriminated against. The situation, however, was different in each service and by mission area:

In the Navy, the first list of CINC priorities included the need for naval minesweeping capability. The U.S. Navy has no minesweepers in the active Navy. The initial call-up included two minesweepers with 50 USNR personnel.

Marine Corps policy during ODS/S was that no reserve units would be used for the first 60 days. The active-duty Marines, in theory, should be able to initially respond to any contingency. Furthermore, USMCR personnel were to be activated only when the active component had been fully committed. By November 6, the *Washington Times* was reporting that the Marine Corps would be activating reservists for combat missions.[39] It was evident that the combat units of the active-duty Marines were extended worldwide as much as possible and that they would need augmentation from the reserves.

The Army called up two ARNG field artillery brigades in late November and early December, which were almost immediately available for deployment to SWA.[40] They fought with the VII Corps and the XVIII Airborne Corps.[41] One artillery brigade received high marks for its direct support of the British 1st Armored Division in its easterly advance into Kuwait. However, when the three roundout maneuver brigades were called in November, they were required to undergo additional post-mobilization training. At the time, this seemed to them inconsistent with statements from active Army leaders about their state of readiness and the readiness status they were reporting under SORTS. The expectations of members of these roundout units were unfulfilled.

The Air Force was aware of the controversy surrounding the Army roundout brigades and wanted to demonstrate the Total Force Concept in ODS/S. Accordingly, two ANG F-16 fighter squadrons and one AFR A-10 attack squadron saw action in SWA. In all 1,465 members of Air Reserve Component combat units were stationed in SWA.

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[39]*Washington Times*, November 6, 1991, p. 12.

[40]For example, the 196th FA Bde validated collective tasks in one week and then conducted a three-day command post exercise before shipping their equipment. Individual training, primarily on survival skills, was then done at the mobilization station while equipment was in transit. The brigade arrived in late-January in SWA. *Army National Guard After Action Report*, p. 11.

[41]DoD, *Conduct of the Persian Gulf War*, p. H-16.

Section 673 Partial Mobilization Period—After January 18, 1991

As the January 15 United Nations deadline passed without the appropriate withdrawal of Iraqi forces from Kuwait, CENTCOM completed final preparations to initiate a military offensive. On January 17 in the early morning hours the coalition initiated the air offensive with an attack on Baghdad. The next day, the president authorized partial mobilization, which allowed the Defense Department access to the Ready Reserve, which included all units and individuals of the Selected Reserve and the Individual Ready Reserve.[42] The IRR was a sizable pool of previously active military personnel that contained a host of specialized skills. More important for Army planners, it also contained recently separated personnel who, with little post-mobilization training, could be used as unit fillers and, in the event of casualties, could become combat replacements.

For nearly six months, the crisis had been supported with reserve forces only by the president's 200,000 call-up authority. Now with the Congress on record as supporting the use of force to obtain the objectives of United Nations resolutions,[43] partial mobilization signaled internationally the full commitment of American resolve and provided a response to the increased military wartime requirements.

Implementation of Section 673 Partial Mobilization

The implementation of partial mobilization (Section 673) was the last phase of reserve activations in ODS/S. DoD authorization under Title 10, U.S.C.

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[42]Executive Order Number 12743, January 18, 1991. In this order the president cited Executive Order Number 12722, August 2, 1990, which declared a national emergency to address the threat to the national security and foreign policy of the United States posed by the invasion of Kuwait by Iraq. The National Emergencies Act (50 U.S.C., Section 1631) stipulates that the president must specify in the declaration of the national emergency or in a subsequent executive order the provisions of law under which he proposes to act. The earlier declaration of a national emergency, by itself, was inadequate for partial mobilization absent the later executive order.

[43]After the president on January 8, 1991, requested that Congress authorize implementing UN Resolution 678 of November 29, 1990, authorizing UN members to use "all necessary means" to bring about Iraqi withdrawal, Congress began a debate on this request. Senator Mitchell, the majority leader of the Senate, opened the debate by reiterating that the president was not required to seek the approval of Congress to order the vast American military force to be deployed to the desert. Deciding to use those forces created the legal obligation to seek the prior approval of Congress to Senator Mitchell. "The change began on November 8, when President Bush announced that he was doubling the number of American troops in the Persian Gulf to 430,000 in order to attain a 'credible offensive option.'" The three days of debate on this issue continued in this vein. On January 12, the Congress approved a resolution authorizing the president to "use United States Armed Forces pursuant to United Nations Security Resolution 678."

Section 673, was again more constrained than the "one million reserves for two years" provided in the law (see Figure 3.6). The Secretary of Defense authorized activation of as many as 360,000 reservists from the Ready Reserve (Selected Reserve units and Individual Mobilization Augmentees and the Individual Ready Reserve) for one year; this included provisions for members of the Individual Ready Reserve and extended the tour of all formerly activated reservists to one year.[44] DoD guidance for the use of IRR was to mobilize IRR as individuals (1) to meet filler requirements of AC units or mobilized RC units, (2) to form new AC units, and (3) to replace combat losses.

At its peak on March 10, some 231,000 reservists were activated, including over 20,000 Individual Ready Reservists. The majority of these IRR members were in the Army (13,800) with the USMC activating 6,100 and the Air Force less than 1,000. IRR activated as a percentage of authorized strength is shown in Figure 3.7.

Prior to ODS/S, there had been a great deal of speculation that many of the individuals in the IRR would not be located, much less be able to perform their military duties. An earlier test of the recall system suggested that only
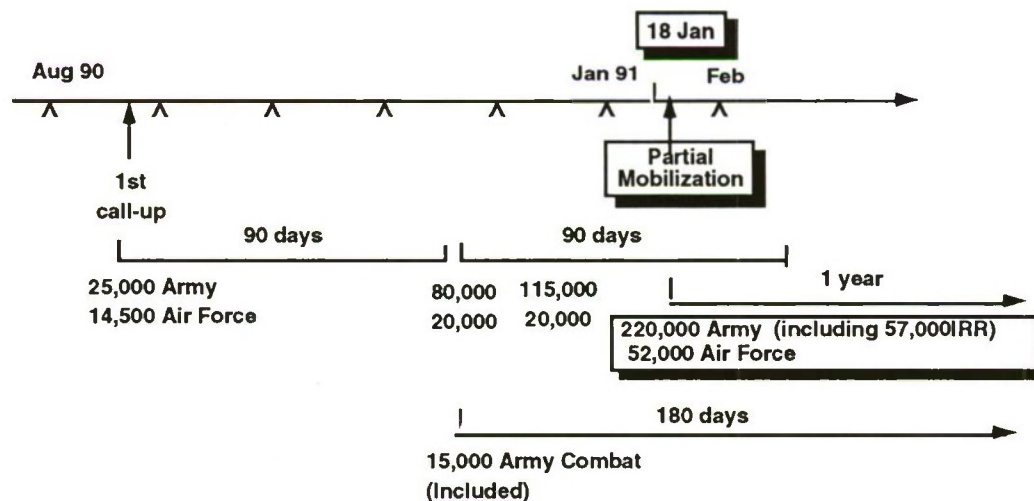

Figure 3.6—How Partial Mobilization Augmented Cumulative Reserve Component Resources in ODS/S

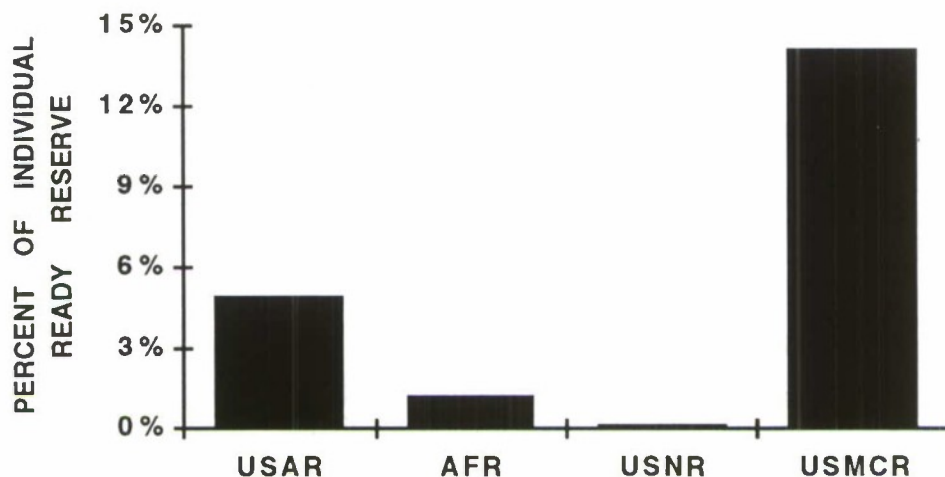[44]DoD, *Conduct of the Persian Gulf War*, p. H-9.

Figure 3.7—Individual Ready Reservists Activated in ODS/S as a Percent
of FY 1990 IRR Strength

about 50 percent of the IRR would be available for active duty.[45] In fact, 75 percent of those ordered to active duty reported to mobilization stations, and most of them were able to perform their duties as required.

The Army soldiers were called largely from the class of recently separated personnel—the "RT-12" personnel—who provide a ready source of trained or easily retrained manpower. Those selected primarily had skills where replacements were expected to be most needed, such as infantry, armor, field artillery, and engineers. Less than 3,000 of those called were actually deployed to Southwest Asia.[46]

In Section 5, we discuss the conclusions and implications that can be drawn about the availability of the reserves under Total Force Policy and legal authorities, as well as their implications for future force planning. In Section 4, we discuss readiness.

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[45]RAND discussions with Army staffers on Exercise "Nifty Nugget."
[46]RAND discussions with Army planner.

4. Readiness of Reserve Component Units and Individuals

Section 3 demonstrated that reserve forces were generally available as needed in ODS/S. But were they ready? The Department of Defense in its report on the Persian Gulf mobilization concluded: "Most units of the Reserve components were ready to be deployed on schedule and the timing and sequence of their deployment was determined by the needs of the theater commanders and similar factors, rather than by post-mobilization training requirements."[1] Our assessment agrees, in general, with that conclusion about units, and we found the same to be generally true for individuals.

In this section, we discuss general issues of readiness: the readiness of Army and Air Reserve Component units prior to and during ODS/S, individual readiness, and means of improving readiness. We discuss the conclusions about readiness and their implications for Total Force Policy and the lessons for future planning in Section 5.

What Is Readiness? How Is Readiness Measured?

Unit Readiness

Readiness is one of the four components of military capability. The others are force structure, modernization, and sustainability. Readiness, as defined by the JCS,[2] is the ability of forces, units, weapon systems, or equipment to deliver the outputs for which they were designed (including the ability to deploy and employ without unacceptable delays).

However, defining readiness is easier than measuring readiness. The problem of measurement is well described by the Reserve Forces Policy Board.

> There is no simple means for measuring readiness. An objective and uniform measuring system for reporting unit readiness

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[1]DoD, *Conduct of the Persian Gulf War*, p. H-13.
[2]*JCS Pub 1-02*, December 1, 1989.

does not exist. As a result, the Status of Resources and Training System is used by some as an erroneous and misleading means for measuring readiness. However, a unit, which is resourced fully with personnel and equipment and trained properly in individual and unit skills, should be ready to perform its mission. SORTS category levels alone do not indicate a unit's readiness. Tangible factors such as numbers of personnel, training, equipment, facilities, and funding all impact on readiness. Intangible factors such as leadership; morale; cohesiveness; skill retention; and physical fitness, strength, and stamina of individual members also affect unit readiness. In addition to SORTS, the results of mobilization tests, readiness evaluations, operational readiness inspections, and other criteria must be examined to estimate the combat readiness of a reserve component unit. There is no single number that can be pointed to as representing the readiness of a unit, or an entire reserve component. The ability to mobilize and deploy forces must also be considered when analyzing military capabilities of the reserve components. [3]

Status of Resources and Training System (SORTS)[4]

The most quantitative indicator in the "complex evaluation"[5] of a unit's ability to go to war is the "C-rating" under SORTS. As noted in Section 3, the C-rating of a unit was the initial consideration in selection of units for ODS/S. Also, particularly for the Army, the C-rating was the primary standard for deployability. The C-ratings reflect the amount and condition of personnel and equipment resources a unit possesses and the status of its training. An overall rating characterizes the proportion of a wartime mission that the reporting unit can perform. The levels are presented in Table 4.1.

The overall rating is reported as the lowest recorded for any of the individual resource areas, but the unit commander can subjectively raise or lower the rating. *The rating is scenario dependent*—a fact that is very important to the controversy over the ARNG combat brigades. For example, a unit may have a strong capability for a particular mission in a particular scenario but that capability could be concealed by the most demanding requirement for a different scenario. The "requirements" can also change legitimately "as equipment, employment plans, training, doctrine, etc. evolve, often in response to a changing threat. For example, a new training requirement could drop a

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[3]Reserve Forces Policy Board, *Reserve Component Programs Fiscal Year 1988*, February 22, 1989, p. xxv.

[4]This description of the SORTS and Table 4.1 are drawn primarily from S. Craig Moore, et al., *Measuring Military Readiness and Sustainability*, RAND, R-3842-DAG, 1991, pp. 10–18.

[5]*1991 Joint Military Net Assessment*, March 1991, p. 11-8.

Table 4.1

SORTS RATING SYSTEM

"C" Rating	Conditions
C-1	A unit has the required resources and is trained to undertake the full wartime mission for which it is organized or designed. These units are expected to have 85 percent or more of their personnel MOS [Military Occupational Specialty] qualified, to have completed over 85 percent of their unit training, and to need 1 to 14 days of additional training to be fully trained.
C-2	A unit has the required resources and has accomplished training necessary to undertake the bulk of the wartime mission for which it is organized or designed. Such units should have 75–85 percent of personnel MOS qualified, have completed 70–85 percent of unit training, and need 15–28 days of training to be fully trained.
C-3	A unit has required resources and has accomplished training necessary to undertake major portions of the wartime mission for which it is organized or designed. These units are expected to have 65–75 percent of personnel MOS qualified, to have completed 55–70 percent of unit training, and to need 29–42 days to be fully trained.
C-4	A unit needs additional resources and/or training to undertake its wartime mission, but if the situation dictates, may be directed to undertake portions of its wartime mission with resources on hand. Less than 65 percent of personnel are MOS qualified; less than 55 percent of unit training is completed; more than 42 days of training are needed to be fully trained.
C-5	The unit is undergoing service-directed resource action and is not prepared, at this time, to undertake the wartime mission for which it is organized or designed.

SOURCE: Army Regulation 220-1.

unit's SORTS category level from C-2 to C-3, say, but the unit would be no less capable." The resources that a unit has are compared to "requirements" for those resources in the most demanding OPLAN to which the unit is committed.[6]

SORTS is an indicator of readiness. SORTS is not an adequate readiness assessment system although used by some for that purpose. First, SORTS was not designed to reflect unit capability to include deployability. Second, it does not provide timely information. For example, in the Army prior to

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[6]Moore, op. cit., p. 15.

ODS/S, while active units generally reported status on a monthly basis, ARNG units were required to report only quarterly and USAR units only semiannually. Third, the SORTS system is not comprehensive because many tangible factors that might affect readiness, such as the experience of personnel or their physical fitness, are not measured. Fourth, quantitative measurements are not sufficiently standardized. In sum, despite its common use as a measure of readiness, the General Accounting Office concluded that "periodic unit status reports were not valid indicators of unit readiness."[7]

Individual Readiness

Operationally ready, as applied to individual military personnel, means available and qualified to perform assigned missions or functions.[8] Measurement of readiness for individuals includes preparedness against deployability criteria such as medical and dental and against qualifications to perform individual jobs within units—MOSQ or skill qualification. Additionally, other aggregate indicators of individual experience or proficiency such as a high percentage of prior service accessions and of high-quality recruits (as measured by level of education and ability to meet AFQT [Armed Forces Qualifications Test] I–III standards) "contribute significantly to RC readiness."[9] Also important are completion by NCOs (non-commissioned officers) of required technical training and training in leadership skills and completion by officers of appropriate military education courses that provide tactical, technical, and leadership development. Individual readiness deficiencies affect unit readiness to the extent that they must be overcome prior to accomplishing needed unit training.

General Issues of Readiness Concerning the Army

Reliance on reserve forces increased throughout the decade of the 1980s. For example, by 1987, the Army Selected Reserve had grown larger than the active Army and made significant contributions to the total Army. Reliance on reserve units makes the question of readiness vitally important in force structure and contingency planning, and their actual readiness under Total Force Policy has been briskly debated.

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[7]General Accounting Office, *Army Training: Evaluations of Units' Proficiency Are Not Always Reliable*, NSIAD-91-72, February 1991.

[8]*JCS Pub 1-02*, December 1, 1989.

[9]Department of Defense, *1991 Joint Military Net Assessment*, March 1991, p. 11-9.

The CAPSTONE program incorporates peacetime command and control relationships and wartime mission relationships. Mechanisms under the CAPSTONE program, e.g., directed training associations such as affiliation and roundout, were used to increase reserve unit readiness through the integration of active and reserve forces.[10] However, even within the Army, opinions have differed about the actual readiness of the reserve components. On one side, in a 1986 letter, Major General Robert Wagner, the commander of the Army's Reserve Officer Training Command told Chief of Staff of the Army, General Carl Vuono that roundout units were not "prepared to go to war in synchronization with their affiliated active duty formations. The Army is deceiving itself to state otherwise."[11] Wagner questioned reserve component training and deployability, leadership, and the echelon at which roundout is applied. On the other side (and shortly thereafter), the vice chief of staff of the Army stated in a speech to the National Guard Association that the National Guard has "demonstrated conclusively to our friends and potential enemies its deployability. . . .you are ready."[12]

The Army's Strategy for Ensuring Reserve Readiness

Army combat units in general are resourced to have higher levels of personnel fill. For example, the General Accounting Office (GAO) estimates that Army support units had been authorized on the average to have been about 90 percent of required personnel in peacetime compared to 97 percent of required personnel authorized for combat units.[13] In general Army policy was to have reserve component divisions manned at their full wartime requirement and to permit them to be overmanned. However, in some cases they were undermanned based upon local recruitability/demographic supportability. Army reserve component support units were generally allowed to have a level of organization to which they could recruit, but not less than level 3 unless specifically approved by Army headquarters on a unit by unit basis. "The ability to maintain units at or above wartime required manning

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[10]CAPSTONE aligns reserve component units with their wartime gaining commands and allows units to focus training on wartime tasks, defined by the active gaining commands, in geographic locations where they would deploy. Affiliation with a like-type unit is used where geographical factors may override a CAPSTONE alignment. The Army regulation providing guidance and policy for managing the CAPSTONE program does not tie it directly to Total Force Policy although CAPSTONE is generally perceived as the Army implementation of the concepts of total force. Roundout was defined in Section 2. *Army Regulation 11-30*, September 1, 1985.

[11]Larry Carney, "Reserve Not Ready to Fight, General Says," *Army Times*, September 29, 1986, p. 3.

[12]Ibid., p. 20.

[13]General Accounting Office, *Operations Desert Storm: Army Had Difficulty Providing Adequate Active and Reserve Support Forces*, NSIAD-92-67, March, 1992, p. 36.

levels is more a function of stationing and ability to recruit locally than risk assessment."[14]

The strategy for reserve component training was to achieve a satisfactory level of competency prior to mobilization. Units with multiple missions would strive for proficiency in their primary mission before planning or training for other scenarios. It is not necessary, in all cases, to train to the levels required for active component forces. Tasks against which to train are specified by the units Mission Essential Task List (METL), which contains the specific tasks critical to wartime mission accomplishment in a particular scenario. METL is developed "without consideration of resource availability, unit manning levels, equipment on hand, or the ability to train."[15] At mobilization, units must then train to meet the specified standard based on the actual contingency.

Strategies for unit readiness. The mobilization process was designed to make army units "more ready" before deployment. As noted by the Reserve Forces Policy Board, "Where time is available, accelerated training programs may be utilized to bring National Guard or Reserve personnel or units to required readiness levels during the mobilization process."[16] The Army employs a model of mobilization similar to that shown in Figure 4.1.[17]
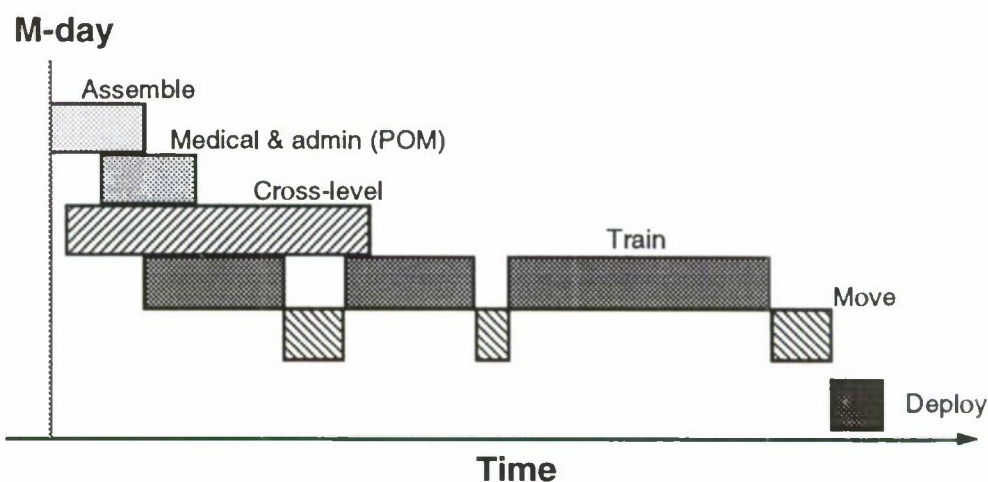

Figure 4.1—Notional Mobilization Process

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[14]RAND discussions with, and papers provided by, Army Secretariat.

[15]*FORSCOM Regulation 350-4*, September 30, 1990, p. 29.

[16]RFPB, *FY88*, p. xxv.

[17]*AR 500-5, The Army Mobilization and Operations Planning System (AMOPS)* specifies responsibilities and provides guidance.

Reserve component units first assemble at their "home station" and start to prepare for overseas movement (POM). They usually move to an active Army base or mobilization station for further processing, organizing, equipping, training, and employment. Along the way, they are assigned new people to fill vacancies and may be issued new equipment from stocks. This is called "cross-leveling."

Units may be scheduled for "post-mobilization training" to resolve any training deficiencies prior to scheduled deployments. While estimates of the amount of training needed are measured against time (e.g., 30–40 days of post-mobilization training), Army training philosophy is based not on time but on achievement of standards. These standards are typically the Mission Essential Task List discussed earlier. In the Army, commanders of the mobilization stations "validate" unit capability and deployability status before reserve component units are sent overseas.[18] This validation process, which dates from the Korean War and is unique to the Army, culminates the readiness improvement phase at the mobilization station. The procedure requires FORSCOM to make sure that reserve component units, prior to deployment, can "meet Army Mobilization and Operations Planning System (AMOPS)-established deployment criteria or other criteria specified during the operation."[19]

Units are validated by mobilization installation commanders, assisted by mobilization assistance teams formed from readiness groups. However, judging whether a unit is deployable is, "ultimately, a subjective call."[20] Criteria at the 40 different mobilization stations that validate unit capability will differ among installations. Lack of standard plans cause installation commanders to define and apply their own standards.[21] Because the Army has no standard criteria for validating proficiency, it will have no assurance

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[18]Active units do not undergo a similar validation. According to testimony by the Army DCSOPS before the House Armed Services Committee on May 5, 1992, the active Army is "validated every day."

[19]*IAMS*, p. G-1-6. While FORSCOM is responsible for the process in the Army, the actual validation may be done by other Army commands such as TRADOC, WESTCOM, or USAREUR.

[20]HASC discussions with CG, Second Army.

[21]*IAMS*, p. G-1-7; GAO, NSIAD-92-67, pp. 37–39.

that similar units mobilized at different sites are similarly proficient.[22] Prior to ODS/S, the standard the Army set for deployability was C-3.[23]

Strategies for individual readiness. For individuals, the issue of preparedness is one of satisfying administrative, skill, and medical/dental requirements. POM is the process of getting individuals in units administratively ready for deployment and sustaining unit readiness through periodic update of personnel records.[24] To the extent these items are accomplished during normal training periods, time is saved at mobilization. However, to the extent these administrative requirements take precedence during limited reserve training periods, the effectiveness of training is diminished.

There are two major factors that affect skill qualification. First, some reservists assigned to units have not completed initial training. The reserve components recruit for specific vacancies in their units, and there is typically a gap between recruiting, initial training, and skill training. Thus, it is expected that a proportion of personnel in reserve units will not have the needed training. In active units, this problem is avoided through the use of overhead accounts to which individuals are administratively assigned for accounting purposes until trained. Once trained, these individuals are then assigned to units and accounted for as part of the operating strength. Second, some individual reservists are trained in a military skill but not in those skills for the job they hold. On mobilization, these individuals are reassigned to a position for which they are qualified, removed from the unit, or accepted for deployment as is.

Emphasis was placed on enhancing individual qualifications for deployment. The Army reserve components had problems with skill (MOS) qualifications

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[22]GAO, NSIAD-92-67, p. 4. This validation process is like assembly line quality control where checks are made against standards at the end and by people other than those responsible for the readiness condition of the unit prior to mobilization. The mobilization process used by the Air Force and USMC for all its units and by the Army for its active units is more like "process" quality control in that there is continual validation in peacetime, and at mobilization the unit is assumed to meet standards because it and the process has been tested throughout.

[23]RAND discussions with DCSOPS planner. See also, Aspin, *Defense for a New Era,* pp. 57–58.

[24]"Items in POM which need to be updated periodically include ID cards/tags; shot records; medical and dental records/panorex; enlistment contract options; pending personnel actions such as courts-martial and chapter discharge; family care plans and special family member considerations; clothing and equipment records; security clearances; individual training records (weapons, NBC, and personal qualification records); emergency data records; SGLI; finance options; allotments; wills; general and special powers of attorney; inventory and disposition of privately owned personal property." Center for Army Lessons Learned, *Getting to the Desert,* December 1990.

to overcome. Figure 4.2 shows the skill qualification of selected reservists as of September 1990.[25]

MOSQ are personnel qualified in some military specialty. DMOSQ are personnel qualified in their current duty position. The MOS mismatch generally occurs when prior service personnel flow into a reserve component unit trained in a skill but not in the skill for their position. Training is then needed to attain qualification in the assigned skill. This mismatch problem will later be seen to affect unit training for the ARNG combat maneuver brigades when they are called. The Army reserve components had attempted to improve the DMOSQ rate by tying promotion to being fully MOS qualified; by using regional training sites; and by collocating Army Reserve Forces Schools with units needing MOS instruction.[26]

Medical, and particularly dental problems, put many reservists initially in a non-deployable state at mobilization. Reservists are not eligible for dental care in military facilities, except during their annual active duty for training. Providing such care at that time, for other than emergencies, is probably beyond the capability of military dental providers and detracts from the actual training. At mobilization, the individuals must meet Class III (treatment to correct a deficiency that could cause an emergency within 12 months is not
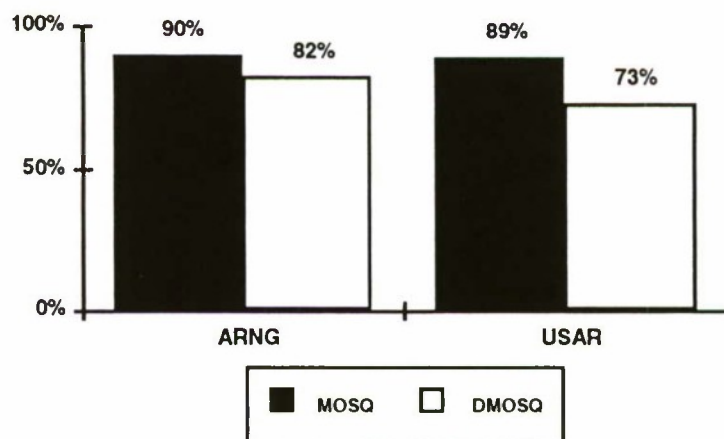

Figure 4.2—Army RC Skill Qualification

[25]RFPB, *FY 90*, p. 68.
[26]RFPB, *FY 88*, pp. 45–46, and *FY 90*, pp. 67–69.

needed) and Class IV (panographic X rays are satisfactory) dental standards. Class III, but not Class IV, standards are generally allowed to be waived.

Perceptions About the Readiness of the Army Reserve Components Prior to ODS/S

Given these concerns, measures, and strategies, was there a consensus about the readiness of the Army reserve components before the Persian Gulf Conflict began? As the earlier quotations indicated, there was certainly disagreement within the Army itself. During the 1980s, various external auditors and researchers examined aspects of reserve readiness in detail. The findings of some of these studies are summarized below.[27]

Binkin and Kaufman at Brookings questioned the credibility of Total Force Policy and reserve reliance and concluded that, considering deficiencies in equipment and the amount of training reserve components receive, "the U.S. Army is not as ready as the rhetoric implies."[28]

In a series of reports beginning in June 1989 and ending prior to the Persian Gulf Conflict,[29] the General Accounting Office identified numerous shortfalls and suggested improvements. In June 1989,[30] the GAO focused on the extent to which reservists were trained in both critical job tasks and in battlefield survival and the factors affecting this training. GAO concluded (beyond the fact that reserve components have only a fraction of the time of their active duty counterparts to accomplish all required Army training and administrative tasks) that some Army schools provided little instruction on equipment that soldiers were expected to operate; some units lacked the equipment to teach critical job tasks; some units did not focus sufficiently on training soldiers in tasks that supported unit missions; survival skills were seldom incorporated in training exercises; and scarce training time often was not used effectively. The GAO stated that the Army had developed a strategy to improve reservists' training that had a principal tenet of allowing re-

[27]RAND's Defense Manpower Research Center hosted a colloquium on Total Force Policy in September 1989. Presentations were made by individuals representing the services, OSD, and 6 FFRDCs. A number of these presentations focused on readiness and training issues. See Glenn A. Gotz and Robert M. Brown, *Proceedings of a Colloquium on Total Force Management*, RAND, N-3110-FMP, 1991.

[28]Martin Binkin and William W. Kaufman, *U. S. Army Guard & Reserve: Rhetoric, Realities, Risks*, The Brookings Institution, Washington, D.C., 1989.

[29]While some reports are dated after the beginning of the Persian Gulf Conflict, the fieldwork, recommendations, and conclusions were completed prior.

[30]General Accounting Office, *Army Training: Management Initiatives Needed to Enhance Reservists' Training*, NSIAD-89-140, June 1989.

serve component units to train on fewer tasks than a like active component unit. In commenting on this report, the Department of Defense said that many of the training deficiencies in the units GAO visited were attributable to unit leadership.

In May 1990,[31] GAO assessed concerns that shortages of essential equipment hampered Army National Guard and Army Reserve efforts to conduct effective training and concluded that the Army had not identified the minimum equipment essential for training in reserve component units.

In a February 1991 report,[32] the GAO reviewed measurements of unit training proficiency, for both active and ARNG units,[33] that are used to make decisions on forces to use in contingency operations. Training proficiency is designed to be measured on the ability to accomplish mission-essential tasks under likely wartime conditions.[34] While both active and reserve units report training status within the SORTS, a FORSCOM evaluation (called the 1-R report) is the primary external source of information on ARNG unit training proficiency. The GAO found:

> Proficiency of active Army units as measured by their performance under more rigorous conditions at combat training centers is often less than that indicated by readiness reports [SORTS]. This difference probably exists because training centers provide (1) large, well-trained, and well-equipped opposition forces; (2) highly realistic wartime environments that can-

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[31]General Accounting Office, *Army Reserve Components: Minimum Essential Equipment for Training Has Not Been Effectively Managed*, NSIAD-90-136, May 1990.

[32]General Accounting Office, *Evaluations of Units' Proficiency Are Not Always Reliable*, NSIAD-91-72, February 1991.

[33]Unit training directly involves officer leadership. At lower levels, e.g., platoon and company, the leadership tasks involve the direction and coordination of crews and individuals. At higher levels, the skills needed are integrative and organizational. However, at all levels of leadership certain technical and tactical skills are necessary. Training evaluation tells a commander and superiors how proficient a unit is in mission essential tasks. Each commander identifies those tasks essential to the unit's wartime mission, and this list of mission essential tasks forms the basis for the unit training and evaluation program. Training evaluations take place at home station and at Combat Training Centers. Evaluations of individual and crew training are done informally through observation by the commander and other unit leaders. Formal information about proficiency is gained through such tests as mortar and tank gunnery exercises that are administered by Army units against defined standards. Unit training evaluations are largely self-evaluations but periodically (approximately 18 months for active units and four years for reserve units) are conducted by higher commands. In addition for reserve units, the Army Forces Command Report 1-R records evaluations performed by active Army training evaluators during each unit's annual two-week training period and is another basis for evaluating training proficiency for reserve units.

[34]GAO, NSIAD-91-72, p. 2. Army Field Manual 25-100, *Training the Force*, sets forth assessment criteria for determining proficiency in mission-essential tasks for both active and reserve units. These criteria are *trained* (the unit can successfully perform the task to standard); *needs practice* (the unit can perform the task with some shortcomings), *untrained* (the unit cannot perform the task to standard). The GAO stated these assessment criteria are general and extremely judgmental.

not be created at most home stations; and (3) more thorough and objective evaluations than those performed at home stations.

Evaluations of Army National Guard units' annual training provide even less reliable and useful information to higher commands than do active Army home-station evaluations. These evaluations are based on training often conducted under unrealistic conditions and are not focused on mission-essential tasks. Moreover, the evaluations provide often general and sometimes conflicting information. Since the 1-R evaluation may be the only information external to the unit available to commanders to complete training readiness reports, these reports, too, are not likely to be valid.[35]

The GAO also cited the conclusion on evaluation of collective training from the Army's 1988 study on reserve training: "None of the assessment tools [unit status report; 1-R report] used to estimate a unit's operational capability provided a reliable and valid assessment to higher commands."[36]

Other studies made similar points about the causes of unreadiness, starting with resources and including the very design of the reserve system. The RFPB stated that, "Overall limiting factors to DoD reserve component readiness in FY 88, in order of total number of units affected, were personnel shortages, individual skill qualification, equipment condition, equipment on-hand, and training."[37] In an independent study, Metzko compared the state of training in Army reserve component units with that of active units in the Army by examining commander comments in units less than C-2. The training deficiencies he cited in the reserve components were shortages of equipment, shortages of technically skilled personnel, and insufficient numbers of supervisors to teach unskilled personnel. To bring combat service support units up to C-1 or C-2, commanders estimated a week's difference between the average for the active Army and the ARNG and 1.5 weeks' difference for the Army Reserve. For combat arms units, the estimates were three times longer for guardsmen than for the active forces.[38] The RFPB noted a number of impediments to training caused by the need to accomplish administrative tasks.[39] "Reserve component units are expected to maintain readiness in less than 20 percent of the time available to active component

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[35]Ibid., p. 3.

[36]Ibid., p. 14.

[37]RFPB, *FY88*, p. xxv.

[38]John Metzko, "The Training State of Army Combat Service Support Units" in Gotz, *Colloquium*, p. 81.

[39]Also see, Marygail K. Brauner and Glenn A. Gotz, *Manning Full-Time Positions in Support of the Selected Reserves*, RAND, R-4034-RA, 1991.

units. Time spent on administrative functions and other activities that do not contribute to readiness should be reduced to increase wartime mission training."[40] Other problems include personnel and force structure turbulence, inaccessible training areas and ranges, and inadequate standards for and evaluation of readiness.[41]

Impediments to Improved Readiness

There are two reasons why solutions to readiness problems have been difficult to achieve: (1) the lack of resources and (2) limited time that reservists are able to devote to military training. Reduced cost is a fundamental rationale for reserve component units and means less time to practice and less personnel assigned. The "price" of reduced cost is usually reduced readiness. Reservists are part-timers with limited time for training or attending institutional courses such as basic training, advanced individual training, new skill training, and leadership courses. Reserve cost advantage and utilization in peace is balanced against the cost of the training and equipment needed to bring reserve units up to the readiness/effectiveness levels of active units at mobilization. In a 1983 report to the Senate, the DoD argued that, "Provided a reserve unit is not given excessive alert requirements, is not required to forward deploy for extended periods in peacetime, is not required to train full-time in peacetime, and is not overly burdened with peacetime support missions, its operating and support costs will be less than its counterparts in the Active Force."[42]

Despite the costs and the arduousness of implementation, readiness indicators for the reserve components, including SORTS, have improved as funding increased.[43] In its FY 1988 report, the Reserve Forces Policy Board reported that 81 percent of all Army reserve component units reporting under SORTS were rated C-3 or better compared with 75 percent in FY 1987.[44] In

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[40]Ibid., p. xxii.

[41]Grissmer reported on the preliminary findings of a study to determine if unit personnel perceptions of readiness changed from 1979 to 1986 and if the various components differed in either the pattern of perceived problems or the level of problem seriousness. He found that over time there were declines in personnel-related issues and increases in training-related issues; consistency in pattern across reserve components with, in general, equipment and training facilities and administrative paperwork as the most serious problems in all components; and the proportions of serious complaints generally rising progressively from the Air Force Reserve through the Air National Guard, the Marine Corps Reserve, the Army National Guard, the Army Reserve, and the Naval Reserve. See David Grissmer, "Perceived Constraints to Unit Readiness: Evidence From the 1986 Survey of Reserve Forces" in Gotz, *Colloquium*, p. 72.

[42]*The Guard, Reserve and Active Components of the Total Force*, Department of Defense Report to the Committee on Appropriations, U.S. Senate, June 30, 1983, p. 17.

[43]*1991 Joint Military Net Assessment*, p. 11-8.

[44]RFPB, *FY88*, p. xxii–xxv.

FY 1990, 735 units or 35 percent of Army National Guard units participated in one or more mobilization exercises. These programs consist of Readiness for Mobilization Exercises (assess a unit's capability to execute mobilization plans); Mobilization and Deployment Readiness Exercises (designed to measure deployment readiness of units that will be participating in overseas training); Emergency Mobilization and Deployment Exercises (designed to assess the execution capabilities of selected high-priority units that deploy on short notice); and State Area Command (STARC) Exercises (which are conducted annually by the STARC to assess capabilities to support the mobilization of units in the states).

Readiness of Army Reserve Component Units in ODS/S

Which opinions about reserve readiness turned out to be true in ODS/S? We look first at unit and then individual readiness.

The Readiness of Army Reserve Component CS/CSS Units

The standard the Army set for deploying combat support and combat service support units was C-3, which means that a unit had to have about 70 percent of authorized people (number and skills), 65 percent of authorized equipment, and need no more than 5–6 weeks of additional training.[45] Prior to ODS/S, reported SORTS data showed that reserve CS/CSS units were about "as ready" as similar active units. For example, about 70 percent of all active and reserve units were at C-3 or higher, which means that they were ready to accomplish at least a major portion of their wartime mission. About 10–20 percent of units were at C-4, which means they required additional resources or training to undertake their wartime mission, and about 15 percent of units reported C-5, which is a status that reflects unit change under way, such as modernization or conversion to new authorizations for people or equipment.

One of the keys to CS/CSS readiness was the extensive cross-leveling that occurred even before units were formally called up. For example, rather than cross-leveling personnel at the mobilization station, using the Individual Ready Reserve, cross-leveling occurred at home station or even before mobilization during the alert phase. Army policy prohibits cross-leveling after

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[45]RAND discussions with DCSOPS planner. See also, Aspin, *Defense for a New Era*, pp. 57–58 and GAO, NSIAD-92-67, p. 36.

alert orders are received. However, during the 5-month incremental call-up, RC units were given the authority to continue cross-leveling of personnel between units through the alerted unit's actual date of mobilization. This enabled the services to use individual reservists from units to increase manning in early deploying units. However, the effect of this was seen in later mobilizing units that reported at lowered readiness levels than units mobilized early in ODS/S.[46] For the Army Reserve, 85 percent of units were C-3 or better at initial call during the period from August 22 to early November. After that, only 66 percent were C-3 or better at call-up.[47] For the ARNG, their cross-leveling allowed them to report that 97 percent of all units called met minimum standards (C-3) at call-up. In total, 75 percent of 500 ARNG and USAR units deploying after November 1990 had prior reported readiness of C-3 or higher.[48] Not having access to the IRR was less of a problem early-on because of the ability to cross-level prior to call within a robust reserve. However, by late November, the inability to use the IRR was creating more of a problem for the Army.[49] Also, the Army limited cross-leveling to a 50-mile radius and did not raise the radius to 300 miles until January. The alert phase allowed the National Guard Bureau and FORSCOM to cross-level at the state level and ARCOM level respectively and bring units to required readiness levels.[50]

Mobilization and deployment of CS/CSS units were fairly straightforward. Typically, a unit spent 3 days at home station before reporting to the mobilization station. At the mobilization station, the unit usually focused on nuclear, biological, and chemical warfare (NBC) training, weapons qualification, common task training, and physical conditioning. Minimum collective training was provided except where units were modernized or provided added equipment.[51] On average, units that arrived at the mobilization station in less than C-3 status generally met this standard within 12 days. Ten percent of these units had personnel readiness problems, primarily MOSQ. Only 3 percent had collective training problems.[52]

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[46]Department of the Army, *Integrated Army Mobilization Study (IAMS)* (U), February 5, 1992, p. J-8-1.

[47]Les Aspin and William Dickinson, *Defense for a New Era: Lessons of the Persian Gulf War*, U. S. Government Printing Office, Washington, D.C., March 30, 1992, p. 55.

[48]Ronald E. Sortor, J. Michael Polich, Thomas F. Lippiatt, unpublished Arroyo Center research.

[49]HASC discussions with Army DCSOPS planner.

[50]For example, see National Guard Bureau, *Army National Guard After Action Report*, June 1991, pp. 15, 31.

[51]HASC discussions with NGB planner.

[52]Thomas F. Lippiatt, Ronald E. Sortor, and Patricia K. Dey, unpublished Arroyo Center research.

The length of the validation process was initially fixed at two weeks for Second Army mobilized units (some 42 percent of all units mobilized), but the actual length of time spent was uneven. The principal variables were the CINC requirement (if CENTCOM urgently needed a unit, it was likely to spend less time at the mobilization station than would a unit needed less by the CINC); availability of transport (since airlift was seldom available when the unit was ready, units generally spent more than two weeks awaiting lift); and readiness. In the latter category, some severely "broken" units took longer to fix, but for the most part Second Army did not consider it necessary to provide extended post-mobilization collective training for CS/CSS units. The reasons for this were that units at company and smaller level had fairly specific, narrow, simple, mechanical collective tasks, and units often shipped gear early to be available in SWA so collective training was precluded.[53]

The Department of Defense in its report of the Persian Gulf mobilization concluded: "Most units of the Reserve components were ready to be deployed on schedule and the timing and sequence of their deployment was determined by the needs of the theater commanders and similar factors, rather than by post-mobilization training requirements."[54]

For the 375 U.S. Army Reserve CS/CSS units that deployed to SWA, 25 percent were at C-1; 40 percent at C-2; and 35 percent at C-3.[55] Some 10 percent of units had their status subjectively upgraded from C-4 because they were falling in on U.S. Army Europe POMCUS equipment shipped to SWA for specific units, equipment had been sent to SWA separately for their use, or the unit would use fixed facilities in SWA. Only 5 percent of all units missed their *initially assigned* air port of embarkation date. (These data do not reflect changes to dates based on CINC requirements, transportation, or other factors.) These few units missed this initial date usually by 12 days or less and the latest unit was 26 days late.[56]

Deployment experience of ARNG CS/CSS units was fairly typical. These units were mobilized sequentially over a six-month period beginning August 22, and they spent a varied number of days at the mobilization station before deployment. Figure 4.3 shows the number of days spent at the mobilization station for the 297 ARNG units that deployed to SWA.

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[53]HASC discussions with CG, 2d Army.

[54]DoD, *Conduct of the Persian Gulf War*, p. H-13.

[55]GAO, NSIAD 92-67, p. 36.

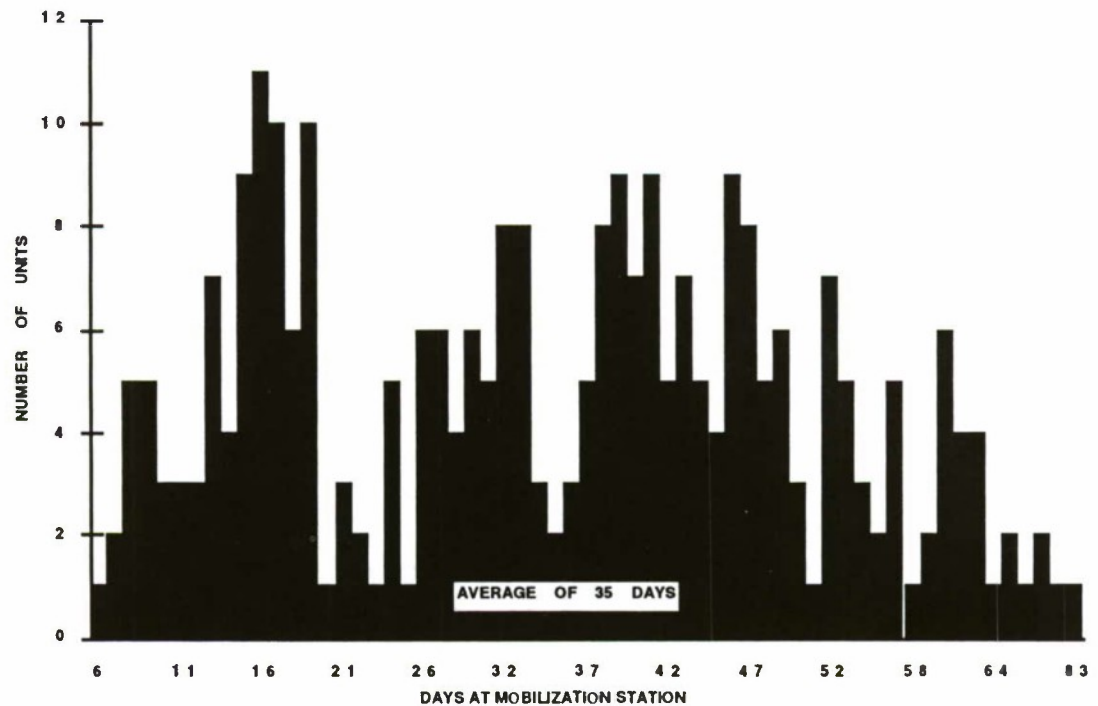[56]Lippiatt and Sortor, unpublished Arroyo Center research.

Figure 4.3—Days at Mobilization Station for ARNG CS/CSS Units

These units spent an average of 35 days at the mobilization station. Twenty-eight percent of them deployed in 20 days; 41 percent in 30 days; and 67 percent in 45 days.[57] Transportation availability was the predominant reason for the variability. "Some Army and USMCR units spent several weeks at mobilization stations before deployment (as long as 5 or 6 weeks in a few cases). Because of strategic lift constraints, theater infrastructure limits, and operational security concerns, a decision was made to hold units in the United States beyond the planned training period until shortly before their equipment was scheduled to arrive in Saudi Arabia."[58] Range in deployability was driven by sealift times. The high end of the curve was due to sealift constraints. In the Army National Guard, one Combat Heavy Engineer Battalion and three Field Artillery Battalions took over 60 days to deploy because their equipment took five weeks to reach the theater of operations from

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[57]RAND discussions with NGB. Unit data is from *ARNG After Action Report*.
[58]DoD, *Conduct of the Persian Gulf War*, p. H-12.

the port of embarkation. In contrast, two Engineer Battalions deployed to Europe without equipment in 14–16 days.[59]

Deployment times varied by size of unit and type of unit. Figure 4.4 shows the average days that an Army National Guardsman in a unit that would deploy to Southwest Asia spent at a mobilization station. Most separate units that deployed were companies and detachments. The vast majority (80 percent) of deploying guardsmen were in company-sized units. In general, each guardsman had about 10 days of formal alert before a unit was called. The typical unit arrived at the mobilization station 3 days after alert and spent the number of days shown in Figure 4.4 at the mobilization station before deployment. As would be expected, the smaller the unit, the less time spent at the mobilization station, but time spent at the mobilization station varied widely especially for detachment- and company-sized units. Typically, the guardsmen in company-sized units spent 40 days at the mobilization station. In detachment-sized units, the average was 33 days, and, in battalion-sized units,[60] the typical guardsman spent 60 days.
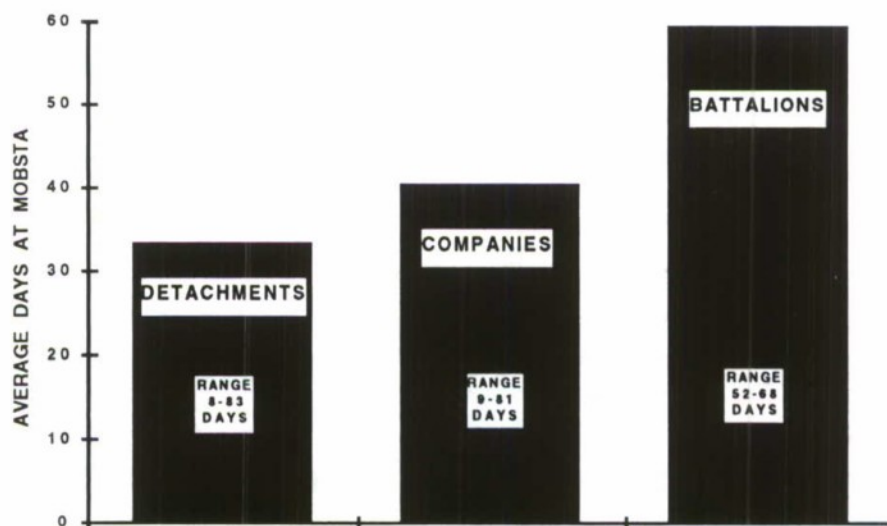

Figure 4.4—Variability by Size of ARNG Unit

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[59]RAND discussions with ARNG planners.

[60]Six of the battalions were Field Artillery; the other was an Engineer Battalion.

For Army CS/CSS units from the reserve components, pre- and post-mobilization actions and a deployability standard of C-3 made units deployable without unacceptable delay. Readiness of Army CS/CSS units was not a detriment to meeting CINCCENT's in theater arrival times.

The Readiness of Army Reserve Component Combat Units

Prior to ODS/S, the minimum Army standard for deployment for active and reserve units was C-3, which means a unit is able to accomplish a major portion of its wartime mission. About 80 percent of all Army combat units, active and reserve were rated C-3 or higher. This was true of the three ARNG combat maneuver brigades—the 48th, the 155th, and the 256th—discussed in Section 3.

In January 1990, the Secretary of Defense had stated that: "The training of each National Guard and reserve unit has been tied to the wartime mission of the unit, and the units have been held to the same performance standards and readiness criteria as active force units."[61] In the Persian Gulf Conflict, this standard was maintained, although for most units the contingency was a different one from that on which Mission Essential Task Lists had been based. When it became necessary to review training readiness against a new scenario, the readiness standard for deployment was increased—for both actives and reserves.

By August 12, FORSCOM had begun doctrinally to source and build a five-division ground force that included the Army National Guard roundout brigades.[62] This plan contemplated an Army call-up share of 88,000 and access to RC combat units. However, other decisions changed these initial plans: the Army chief of staff[63] decided that while CS/CSS units would deploy at the C-3 standard, the standard for combat units would be C-1; Secretary Cheney imposed an initial call-up limit of 25,000; and the CINC specified priorities for units. As a result, only CS/CSS units were initially called.

The unit selected to replace the 48th as part of the 24th Division was the 197th Brigade at Fort Benning. While not at the new deployability standard

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[61]Dick Cheney, *Annual Report to the President and the Congress*, January 1990, p. 21.

[62]Army National Guard, *After Action Report: Operation Desert Shield/Storm*, June 28, 1991, p. 130.

[63]RAND discussions with Army planners. See also Aspin, *Defense for a New Era*, p. 59.

at selection, this unit was C-1 "across the board prior to deployment as well as after."[64] The active unit selected to replace the 155th Brigade was the 1st Brigade of the 2d Armored Division, the Tiger Brigade. While it did not have a separate Unit Status Report (USR) evaluation (this is typical for a divisional brigade; separate brigades do report via the USR), FORSCOM judged it to be high C-2 or low C-1 when assigned to the 1st Cavalry Division. It was built to C-1 at Fort Hood by drawing people and equipment from active units there.[65]

The General Accounting Office reviewed the brigades that replaced the National Guard combat roundout brigades on measures such as officer and noncommissioned officer leadership training; MOS qualification rates; gunnery qualification rates; and collective training events completed. GAO concluded that the replacement brigades demonstrated a higher level of proficiency at the time of their deployment to the Persian Gulf for almost every objective measure of individual and unit proficiency than the roundout brigades. "Replacement brigade soldiers were better trained to lead, achieved higher rates of individual skill qualification, and were more proficient in tank and Bradley Fighting Vehicle gunnery skills. Replacement brigade units completed far more collective training exercises at the company, battalion, and brigade levels, thus providing brigade and battalion staffs with a greater opportunity to develop proficiency in complex synchronization skills—the most difficult doctrinal and leadership task in the Army."[66] Levels of MOS qualification or officer basic course completion can be explained by not having an overhead account to which newly recruited soldiers or soldiers changing MOS can be assigned until training is completed. Some of these deficiencies could have been overcome though through greater use of prior-service personnel. Dental and other medical standards also work in active soldiers' favor because dental care is not provided to reservists but dental standards are applied at mobilization. The Dental Class III standard and the over-40 physical requirement could have been waived as they were for other deploying units in the Army.

Perhaps the most significant comparison though is in the number of training opportunities. As the GAO points out, the replacement brigade soldiers had substantially greater training opportunities, which is typical of active units in comparison to reserve units. In the year before Desert Storm, the two re-

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[64]HASC discussions with FORSCOM and 2d Army.

[65]HASC discussions with FORSCOM and 2d Army.

[66]Draft report and briefing, "Substitution of Active Brigades for National Guard Roundout Brigades in Operation Desert Storm," provided to RAND by GAO on September 2, 1992.

placement brigades conducted significantly more training exercises than the roundout brigades, which better prepares them to take advantage of the large-scale maneuver exercises at the National Training Center (NTC).[67] This center "challenges brigade and battalion staffs in a realistic wartime environment. Successful commanders must be able to synchronize all resources and operating systems to maximize available combat capability."[68]

When Secretary Cheney announced the call in November of the ARNG brigades, he cited the "opportunity to train to active component standards." The issue of post-mobilization training to the SORTS C-1 standard against the expected tasks and conditions of the Persian Gulf then became dominant. Prior to mobilization and based on SORTS data, 30–40 days of post-mobilization was to be expected. For example, the chairman and members of the House Armed Services Committee stated that the time to train up the reserve combat units was debatable. "The Army National Guard roundout brigades are supposed to be trained and ready so that they can be mobilized and begin deployment in a relatively short period of time—in the case of the 48th Mechanized Brigade, within 30 days from the time they are mobilized."[69] However, estimates of the actual train-up need varied from 34–180 days.[70] (While these are estimates of time needed, actual training is judged against a standard and not time.) The roundout brigades were alerted on November 15 and were federalized between November 26 and December 7. They were assigned missions of reinforcement, in an extended conflict, and of providing rotational units in case of a prolonged deployment.[71]

Training plans had initially been formulated in August and September. Since the 24th Division, with which the 48th had a roundout directed training association, had deployed, the commanding general (CG) of Second Army was assigned the task of validating the 48th Brigade. In his assessment, training time would be a function of *need* for the unit as well as readiness. "Since the CINC had not established a requirement for roundout brigades, the Army had more time to train the 48th Brigade, placing greater emphasis on cognitive skills versus the purely mechanical."[72] The commander of

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[67]Detailed training history data on roundout and replacement brigades were provided by the GAO at a briefing on September 2, 1992, and forwarded by DoD to RAND for use in the study on September 4, 1992.

[68]Draft GAO report on replacement brigades, p. 34.

[69]Les Aspin, Beverly Byron, and G.V. (Sonny) Montgomery, "Iraq, Saudi Arabia and the Reserve Components: Missing Lessons for a Future Force Structure," October 15, 1990, p. 6.

[70]Department of the Army Inspector General, *Special Assessment National Guard Brigades' Mobilization*, June 1991, p. 2–2.

[71]Department of the Army, *Army Focus*, June 1991, pp. 17–18.

[72]HASC discussions with CG, 2d Army.

FORSCOM had a similar assessment. "As the situation evolved in the Gulf, it became apparent that more time was available. We took that time and further mastered the 48th Brigade's combat skill."[73] The Army inspector general[74] in his report on the mobilization of the Army National Guard combat brigades after ODS/S also reflected on this. "The training process employed to prepare the three Roundout brigades to deploy and fight was situational, relative to Desert Shield requirements. . . . Actual process time was governed ultimately by urgency of need in theater. . . . The extent of corrective actions for all three brigades in context with the low urgency of need for them in Southwest Asia clearly justified a period of deliberate readiness improvement."[75] In responding to the GAO report, the Department of Defense stated that the policy was to refrain from sending any unit into combat "until it was needed and ready," which allowed the combat brigades additional time to train on new tasks geared to Southwest Asia. "The U.S. Forces Command prescriptive training program, therefore, did add substantially more training days than planned for. . . ."[76]

In terms of the actual train up, both the Army IG (inspector general) and the General Accounting Office[77] reached similar conclusions. First, initial training plans were based on unreliable evaluations. Second, individual preparedness affected unit training. Third, deficiencies affected readiness. Each of these will be briefly summarized.

As discussed earlier, neither the Unit Status Reports (USRs) nor the FORSCOM 1-R reports were accurate and in general showed inflated training levels. In the words of the Second Army CG, the pre-mobilization USRs overestimated unit capabilities. Status of MOS qualification, equipment, and training days to reach C-1 were usually inaccurate. Each of the brigades changed their reported readiness status after mobilization. The 256th reported C-5 because it had not completed new equipment training after modernization. The 155th adjusted its training readiness up while the 48th adjusted its down. In devising new training plans, Second Army and III Corps reviewed past performance of two of the brigades at the National Training

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[73]Congressional testimony on March 8, 1991, as quoted in General Accounting Office, *National Guard: Peacetime Training Did Not Adequately Prepare Combat Brigades for Gulf War*, NSIAD-91-263, p. 48.

[74]In November 1990, the chief of staff of the Army tasked the Army inspector general to assess the efficiency of the process by which the three brigades were mobilized and trained. The Department of the Army Inspector General (DAIG) report, *Special Assessment National Guard Brigades' Mobilization*, June 1991, was approved by the chief of staff, Army on July 8, 1991. The Army made this assessment available for RAND use.

[75]DAIG, *Special Assessment*, pp. 2-1, 2-2, 3-1.

[76]GAO, NSIAD-91-263, p. 48.

[77]DAIG, *Special Assessment* and GAO, NSIAD-91-263.

Center and consulted with others about what to expect. The CG of III Corps described the process of putting together training plans. "There are no documented standards—it is subjective analysis. At Fort Hood, we reviewed old Mission Essential Task Lists (METL)[78] tasks and added SWA specific mission essential tasks and then tried to assure the unit met the minimum requirement for those mission essential tasks."[79]

Executing these plans was hindered by the initial lack of individual preparedness. While the three brigades mobilized at between 95 and 117 percent of strength, many of these individuals were non-deployable or their lack of individual qualifications hindered training in other ways. For example, individuals who needed to meet Class III or Class IV dental standards (see below) or who needed over-40 physicals were not training while they accomplished these items. (Unlike other units, over-40 physicals and Class III dental problems were not made waiverable for the roundout brigades.) There were also numerous personnel who were not trained in the particular skill of the job they held. Many lieutenants had not been through Officer Basic Course and were non-deployable. Ultimately, the readiness deficiencies that would hinder the units in their collective training were soldiers not being qualified in their jobs; NCOs not trained in leadership skills; and staffs with tactical and technical weaknesses.

Deployability of the personnel in the 48th Brigade changed over time. When alerted in November, brigade personnel were expected to have a deployability rate of nearly 80 percent. But after call-up in December, this rate fell to 50 percent as the stringent standards for deployability, primarily medical and dental, were applied. These deficiencies were overcome between call-up and February 15. The brigade did improve and individuals in the 48th were 90 percent deployable on February 15.

Ninety-one days after call-up and on the day the war ended, the 48th Brigade was judged to be combat ready after observation of its performance at the

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[78]Mission Essential Task Lists state the mission capability objectives and training requirements. Changes in METL to meet the requirements of new missions (e.g., ODS/S) demand new training plans.
[79]HASC discussions with CG III Corps.

NTC.[80] This 91 days included about 74 collective training days.[81] The DAIG estimated that an additional 24 days would have been spent in stand-down from training, movement, and transportation for a total of 115 days from call to deploy for the 48th.

The DAIG further generalized from their observations of the brigades by estimating that, if the improvements they recommended were adopted (see below), the minimum time from call to deploy would range from 50–72 days, if there were not an NTC rotation, to a high range of 79–110 days, if there were an NTC rotation in which the unit took its own equipment.

The GAO, reviewing the same data, cautioned that little light had been shed on future needs for post-mobilization training. The GAO did not generalize because the ultimate validation criteria were not specified in an objective manner and because of the high number of active trainers devoted to the validation process. (There were a total of 5,500 active soldiers including the opposing force (OPFOR) at NTC for all three brigades; a maximum of 2,800 for one brigade.) Also, for these and all reserve component units, the date of call-up directly affects the date of deployment.

In summary, while one maneuver brigade was actually validated, the other two were capable of it within about three to four months of activation. "This is an unprecedented achievement, when compared to the previous historical experience of mobilizing National Guard combat units of brigade or division size."[82] However, compared to rhetoric and expectation prior to ODS/S, the achievement seems less. The critical question of post-mobilization training remains the reality for the future, and this question is addressed in the task on measuring military effectiveness.[83]

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[80]Had the brigade(s) been mobilized on August 22 and had a similar activation and training regimen as that of the later activation in December been followed, the 48th could have been available for deployment sometime in early December. This argument is reviewed in a recent study by the Congressional Budget Office (CBO). In particular, CBO cites 48th Bde target attrition percentages and rounds per kill data from its NTC evaluation compared to III Corps averages as the basis for the argument by reserve proponents. CBO also reflects that the active army argues "that it may be misleading to compare these scores." CBO, *Structuring U.S. Forces After the Cold War: Costs and Effects of Increased Reliance on the Reserves*, September 1992, pp. 14–17.

[81]HASC discussion with 2d Army CG.

[82]Goldich, op. cit., p. 23.

[83]We would also add that the estimates are based on making C-3 units into C-1 units using a different METL than had been planned for because the scenario was different than planned. One does not know from the ODS/S experience of the three brigades the amount of time to become C-1 or C-2 starting from a higher status than C-3, which is more akin to the Air Force and USMC experience. One also does not know how the process might change if the brigades were actually *needed* for deployment as were CS/CSS units. What does appear certain is that some period of time is needed before deployment at a C-1 level for units that are resourced at lower levels or for which the realities of reserve service prevent from achieving that status. RAND's

General Issues of Readiness Concerning the Air Reserve Component

Strategy for Ensuring Reserve Readiness

Plans called for the Air Reserve Component (ARC) to be capable of augmenting the active forces within 48 to 72 hours.[84] The Air Force holds its reserve component units, both Air National Guard and Air Force Reserve, to the same readiness standards expected of active units. In FY 1990, Air National Guard units underwent 94 inspections by their active gaining command; all units passed. Air Force Reserve units are annually required to test their mobilization procedures and in-processing plans. Also, each fiscal year, a combination of Unit Effective Inspections and Operational Readiness Inspections are conducted on designated units.[85] According to a former Air Force inspector general, supervising training in and evaluating status of Air units is easier than for Army combat units. A realistic operational readiness inspection is clear: one can define skills and test them. The Air Force and its reserves do the same things in peace and war; they can do them everyday; and then can see and touch what they need to do.[86]

In general the Air Force resources—provides funds, equipment, and personnel—its reserve component for greater training opportunity, which should result in "measurably greater performance."[87] "Operating tempos are one of the yardsticks used to measure the training opportunities available to military personnel. Although increased operating tempos do not translate automatically into increased readiness, there is no doubt that without adequate levels of operation, readiness deteriorates."[88] For the Air Force, frequent flying is also necessary to maintain proficiency to preclude accidents. Proficiency is as much a safety issue as a readiness issue. But for both these reasons the result is that in the Air Force, "there is no such thing as an unready unit."[89]

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estimate of train-up times is provided in separate research that is part of the overall active/reserve mix study.

[84] *Air Force Reserve Road Map to the Future*, Office of Air Force Reserve, Pentagon, Washington, D.C. 20330.

[85] Reserve Forces Policy Board, *Reserve Component Programs Fiscal Year 1990*, March 2, 1991, pp. 101–102.

[86] RAND discussion with General Robert Bazley, July 29, 1992.

[87] Horowitz reported on work linking capability of aviation units and number of flying hours. This work took into consideration the value of experience in performance, which was cited as a strength of reservists. He concluded that more flying hours result in measurably better performance. See Stanley A. Horowitz, "Relating Flying Hour Activity to Indicators of Operational Performance" in Gotz, *Colloquium*, p. 58.

[88] Dick Cheney, *Annual Report to the President and Congress*, January 1990, pp. 22–23.

[89] RAND discussions with Secretary of the Air Force, Donald Rice.

Figure 4.5 shows FY 1989 actual operating tempos for the Air Force, and, for comparison, Figure 4.6 shows similar data for the Army.[90]
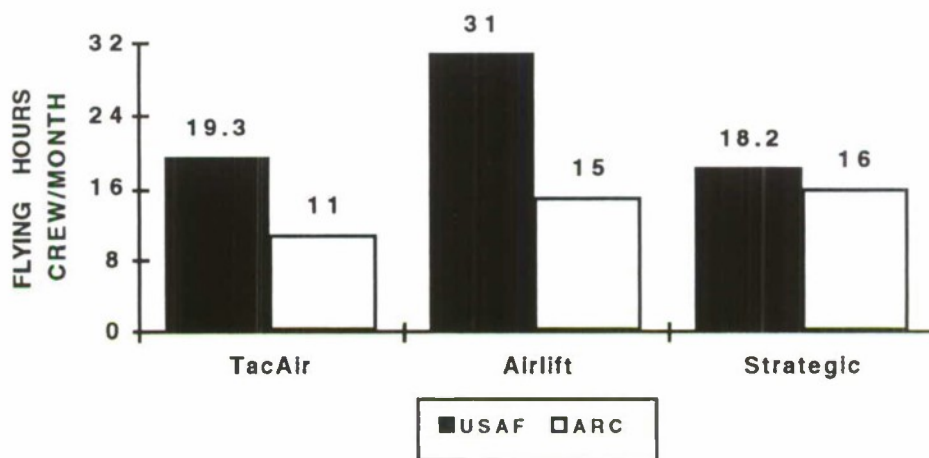

Figure 4.5—Air Force Operating Tempo
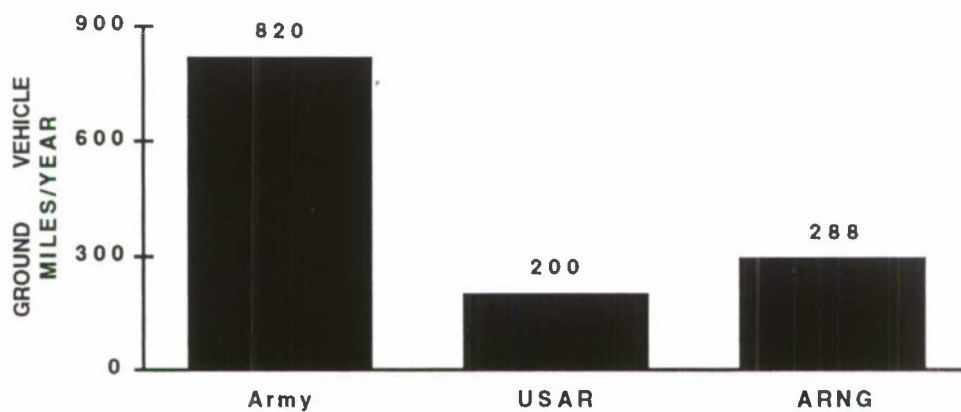

Figure 4.6—Army Operating Tempo

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[90]ARNG ground or surface operating tempo is for pacing vehicles (e.g., tanks). Data are actual FY 1989 from 1990 Secretary of Defense *Annual Report to the President and Congress*, p. 23.

The Air Force provides fewer flying hours to the Air Reserve Component than to active units. One of the reasons for this is that ARC units generally are tasked to maintain readiness in fewer Designed Operational Capabilities (DOCs) than are the active units. An active fighter wing, for example, may be tasked to maintain proficiency in nuclear strike, air-air, close air support (CAS), and interdiction. A similar ARC unit may only be singularly tasked to perform the CAS role. Since they are tasked to maintain proficiency in fewer roles, the ARC receives fewer flying hours and is less expensive to operate. However, the Air Force still gives the reserve component relatively more flying training hours than the Army gives "ground miles" to its reserve component units—an average active/reserve ratio of .64 for the Air Force and .29 for the Army.[91] Incidentally, this mirrors the relative cost advantage that reserve component units have over their active counterparts, i.e., on average, Air Reserve Component units are about one-third less expensive and Army reserve component units are about two-thirds less expensive.

The Air Reserve Component did not have a significant skill mismatch problem. Figure 4.7 portrays skill qualification rates as of September 1990 for the Air Reserve Component.

The Air Reserve Component are better able than the Army to obtain people in the right grade and skill initially. This high level of skill qualification is fueled by the high rate of prior service entrants, which is supportable by the
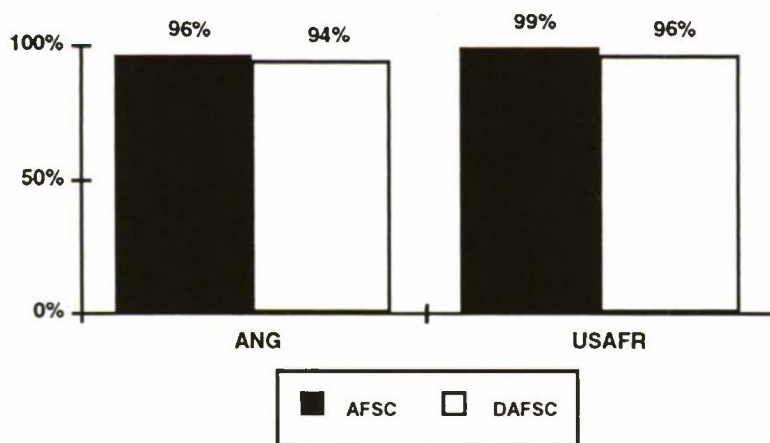

Figure 4.7—Air Reserve Component Skill Qualification

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[91]Army reserve components do receive about 60 percent as many flying hours as their active tactical force counterparts.

relatively larger active component. For example, in FY 1991, 76 percent of Air Force Reserve prior service enlistees were gained in the same Air Force Specialty Code (AFSC) previously held.[92] Skill mismatches are insignificant for the Air Force Reserve because they obtain people in the right grade and skill initially and then use the promotion system to maintain alignment.[93]

Readiness of Air Reserve Component Units in ODS/S

C-2 means that a unit can perform the bulk of its wartime missions. For the Air Force, this means that 70 percent of aircrews are formed, available, and fully operational. Units were resourced and maintained in a C-1 or C-2 status. "The Air Force has structured its 200,000 guard and reserve people primarily into small units (e.g., squadrons). In wartime these units would surge their routine peacetime support to the Military Airlift Command for airlift missions, to the Strategic Air Command for air refueling missions, and to the Tactical Air Command for tactical combat missions."[94] Discussions with leadership of the Air National Guard and the Air Force Reserve confirm that, in wartime, the idea is to fit reserve units into active structures at squadron level and below in most situations.

The air mission lends itself to being ready, and this was seen in ODS/S. "ARC units, aircrews, maintenance crews and support personnel required little to no post mobilization training before performing their respective missions. All mobilized ARC flying units mobilized in 24 hours or less, and were prepared to deploy or did deploy in less than 72 hours. For example, the 926th Tactical Fighter Group (TFG) an A-10 unit, was recalled on 29 Dec, deployed on 1 Jan, and flew proficiency sorties until the unit began combat operations with the launch of the Air Campaign."[95] Access to the IRR for the Air Force was not a problem both because of volunteers and the overall higher level of personnel fill.[96]

Unlike the Army, there was not a formal post-mobilization validation process as part of the deployment paradigm nor was significant additional training required. According to the Secretary of the Air Force, the art does

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[92]RAND discussions with and materials provided by the Air Force Reserve, May 1991.

[93]RFPB, *FY 88*, pp. 45–46.

[94]Aspin, *Defense for a New Era*, p. 68. (Since ODS/S, the Air Force Major Command structure of MAC, SAC, and TAC has changed to Air Mobility Command, Strategic Command, and Air Combat Command.)

[95]DoD, *Conduct of the Persian Gulf War*, p. H-15.

[96]HASC discussions with Air staff.

not exist to measure the difference between a 30-day unit and a 72-hour unit so all 72-hour units made sense. "The ARC can go in 72 hours but not on day 1; real world is 72 hours to 10 days."[97] Rather than after-the-fact validation, acceptance up-front was typical. For example, an active wing commander stated that the reason the use of reserves worked in ODS/S "goes back to peacetime training and common active duty experience." The critical elements included the fact that active numbered air forces inspected guard units against common standards.

Also, a MAJCOM such as TAC was responsible for unit capability and was thus serious about providing equipment and training. ARC units are referred to as "TAC gained units" and not guard/reserve units, and this demonstrated commitment by the MAJCOM. Additionally, ARC units were not allowed to slip on standards. TAC investigated accidents; the ANG trained the same and with the active; and the ANG responds to problems identified by TAC. Also, ARC brought experience with it. Reserve aircrews, because of their combat experience, helped with the "emotional rollercoaster of younger active pilots." This wing commander stated, "I would go to war with them again anytime."[98] These sentiments are reflected in after action reports. "Comments from AFCC [Air Force Communications Command] and TAC laud the outstanding performance of ANG personnel and equipment. Their comments also validated ANG wartime skills training as being effective and that equipment will meet even the most arduous conditions."[99]

Qualifications of Individual Reservists for Deployment

The readiness of individual reservists was generally high in ODS/S. Medical and particularly dental problems put many reservists *initially* in a non-deployable status. While the actual numbers of non-deployables was small, the initial number of non-deployables, primarily for dental reasons, was larger. For example, in the Army, of the 145,270 RC soldiers called to active duty, 33,025 (22.7 percent) were classified as Dental Class III. Over 34,000 (23.4 percent) required a panographic X ray. Most of these problems were fixed, but some 4,000 deployed with waivers. Only 8 did not deploy.[100]

The Reserve Forces Policy Board provided the following summary:

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[97]RAND discussions, March 18, 1992.
[98]HASC discussions with active component wing commander.
[99]*ARNG After Action Report*, p. 88.
[100]*IAMS*, pp. G-1-7, G-3-4.

Each of the services exercised compassion and discretion in determining the deployability of service members called to active duty for ODS/S. Under existing law, RC personnel can be mobilized, but they cannot be deployed outside the continental US until they have completed a minimum of 12 weeks basic training. There is a constant flow of recruits in the training pipeline who cannot be deployed. Consequently, some nondeployables can be predicted, such as new members who have not completed basic training. Others had completed their military service obligation, but had not yet been administratively transferred from the unit. Some had temporary problems, such as medical, which were later resolved. However, in each case, other personnel had to be reassigned to fill these positions so that units could be mobilized at full strength. Failure to identify Reservists with medical problems prior to mobilization unnecessarily strained mobilization support resources. The number of personnel identified as nondeployables varied in each Reserve component.[101]

The ARNG and USAR had soldiers who were non-deployable because of awaiting basic training, awaiting discharge, medical reasons, legal, and other reasons. Eighteen percent of the IRR were *initially* found to be non-deployable for medical and compassionate reasons. ANG commanders substituted personnel as problems were identified. Medical problems were minimized because entry medical examinations were not performed and the weight control regulation was put on hold. The AFR mobilized only those who were qualified and available. The reasons for non-deployability were medical, pregnancy, civilian school, humanitarian, and dependent care.[102]

Invariably, the numbers of non-deployables is described as no more than a minor impediment, if any problem at all. For example, a planner in the Army DCSOPS described non-deployables as not a problem, including no-shows in the IRR. The commanding general of Second Army states that, including the roundout brigades, only 2.7 percent of those arriving at his mobilization stations were ultimately non-deployable. He believes that even with the extensive effort to have all units ready at call-up, some individuals "hid" their non-deployability in order to accompany their unit. Ultimately, he concludes that skill mismatch was not a problem for Second Army units, which accounted for 42 percent of all RC units mobilized.[103] A general officer on the FORSCOM staff also stated that skill mismatch was not a problem.

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[101] Reserve Forces Policy Board, *Reserve Component Programs Fiscal Year 91*, February 28, 1992, pp. 50–51.

[102] Idem.

[103] HASC discussions with CG, 2d Army.

Where mismatches or shortages existed, they were solved by a combination of filling vacancies with RC volunteers, active personnel, or later with the IRR. Where training was needed, individuals were sent for it or in some cases special training was set up.[104] In the Air Reserve Component, "primary job qualifications and performance are the standards by which ANG people are judged during a contingency. Reports from all gaining MAJCOMs involved in ODS/S confirm that ANG people . . . were well-prepared to perform their wartime missions. Comments citing outstanding ANG performance include all career fields and mission areas."[105]

Ideas for Readiness Reform

Since ODS/S ended, a number of studies and reports have dealt with the issues of reserve readiness, particularly with respect to the Army.[106] We summarize them below. Many of the recommendations are long-standing ones; few are disputed. However, for many of the recommendations the outcomes—the effect on future deployability and individual qualification—are not known.

In general, the reforms focus on reducing the time to deploy for units. These are the generalized assertions:

- Mobilization, validation, and deployment can be speeded up.

- Pre- and post-mobilization training can be enhanced.

- Training validation standards can be set.

- Measurement and reporting can be improved.

- Leaders and followers can be better prepared.

The Department of Defense, the House Armed Services Committee, and the GAO have put forth particular recommendations. The DoD is considering: extending the time limits on Section 673b authority to 180 days plus 180 days, seeking authority for the Secretary of Defense to call up a limited number of Selected Reservists for operational missions, aligning retention standards with deployment standards, improving pre-mobilization training for

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[104]HASC discussions with FORSCOM staff.

[105]National Security Analysts Incorporated, *Air National Guard Desert Shield/Desert Storm Lessons Learned*, January 7, 1992, p. 83.

[106]Many of these (such as the *FY 1991 Report* of the Reserve Forces Policy Board, the *ARNG After Action Report*, and the *Integrated Army Mobilization Study*) have been frequently cited. A more recent study is, Congressional Budget Office, *Structuring U.S. Forces After the Cold War: Costs and Effects of Increased Reliance on the Reserves*, Washington, D. C., September 1992.

units and pre-mobilization skill qualification for individuals, and methods for obtaining better information on unit capability. DoD is also evaluating options for providing individuals under Section 673b authority to increase readiness of units at mobilization. The GAO has suggested: specific actions to speed the mobilization of reserve support forces, determining changes needed in peacetime training, exploring roundout at lower levels than brigade, and improving readiness information.

The House Armed Services Committee has set forth a comprehensive set of recommendations focused on the Army National Guard in six areas. These reforms are derived from recommendations by the GAO, by the Department of the Army Inspector General, and from its own staff.

1. Increase experience and leadership levels in the National Guard. This would be done by mandating that by 1997, 65 percent of officers and 50 percent of enlisted personnel would be prior service. Also, active officers would comment on promotion for reserve officers.

2. Focus training on individual and small unit skills.

3. Strengthen personnel standards by establishing stricter medical, dental, physical screening. Also, a special non-deployable personnel category would be established to which individuals could be assigned while gaining deployability.

4. Remove impediments to effectiveness by providing compatible systems for personnel, maintenance, supply, and finance.

5. Create new "report cards." This would be done by modifying reporting systems to accurately assess unit deployability. Every ARNG combat unit would be required to formally associate with an active unit. Active units would assess National Guard training, readiness, and resource requirements.

6. "Reform" the active Army by making it accept responsibility for Army National Guard readiness and require that the ARNG be integrated into planning for regional contingencies and allocate resources accordingly.[107]

Most reforms use an implicit criterion of improving "absolute" readiness. For example, implementing a reform is assumed to have a positive effect on the length of time it takes a unit to be ready to execute its mission to include deployment. However, one must consider relative improvement as well.

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[107] *Report of the Committee on Armed Services House of Representatives on National Defense Authorization Act for Fiscal Year 1993*, pp. 19–20.

Reforms would only be expected to have a marginal improvement on the readiness of the Air Reserve Component and Army reserve component CS/CSS units *as seen in ODS/S*. The ability to improve against those standards and conditions is narrow. The lower bound is probably set by the "realities" and resourcing of reserves; the upper bound is the availability of lift to move units if they were mobilized faster. The question of reform for units that met their deployment dates in ODS/S may be moot except under changed assumptions such as the need to deploy sooner or at higher standards in the future or the need to deploy given less robust overall active and reserve forces.

However, reforms could lead to significant improvement for Army reserve component combat forces. The range for improvement seems much larger especially under the condition that these units must improve to a C-1 SORTS standard before deployment. Given the expected length of time to accomplish this, there is greater opportunity to gain meaningful time savings.

In the next section, we bring together our conclusions about the availability and readiness of the reserve component under Total Force Policy, the implications of these conclusions, and the lessons for future force planning.

5. Conclusions and Lessons

In this study, we have two purposes. The first, as mandated by the congressional authorization, is to evaluate the effectiveness of Total Force Policy in the Persian Gulf Conflict. The question is "Was Total Force Policy Effective in the Persian Gulf Conflict?" The second is to derive lessons from that evaluation that can be used by the larger, overarching study to assess the structure and mix of future active and reserve forces. The question becomes "What did the Persian Gulf Conflict teach us about the effectiveness of Total Force Policy that might help us set policy for future conflicts?" In this section, we answer those questions. We present our conclusions about the availability and readiness of the reserve component in ODS/S, implications and lessons for future active and reserve structure and mix, and our overall assessment of the effectiveness of Total Force Policy in the Persian Gulf Conflict.

The Availability of the Reserve Components Under Total Force Policy

"What a president does in response to a crisis, if anything, depends on his political sense and the diplomatic and military levers in reach, not somebody's master plan in the bottom drawer."[1] The availability of reserves was predictable from the debate on the establishment of the presidential call-up authority that took place 25 years before. Considerations other than military need and military planning dictated a slow, rolling call-up. Partial mobilization was perceived to be a major political step; the president was told that he would be advised when that step was needed.[2]

In ODS/S, the numbers and types of reserve units and individuals that were needed were available through use of the existing authorities. That need was predominantly for reserve support units. By and large, the active combat forces were sufficient to meet the need for combat units in ODS/S—although this sufficiency varied across services. Prior military planning for the global

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[1]George Wilson, "Solve Base Force Problems Before Shooting Starts," *Army Times*, April 20, 1992, p. 29.

[2]RAND discussions with Chairman of the Joint Chiefs of Staff, October 9, 1992.

conflict had assumed that individual reservists would be available involuntarily prior to deployment of units needing them. However, under the slow call-up in ODS/S, Individual Ready Reservists would not be available until January 18, when partial mobilization was declared. Many individual reservists did volunteer and were used early in the conflict.

Below, we describe some of the lessons and implications about availability to be learned from each period of the call-up.

The Volunteer Period

Contingency plans should acknowledge the need for volunteers from the reserve components early in operations. These plans should identify the missions for which volunteers would most likely be needed and establish a minimum length of participation for volunteers. Thus, expectations would be established in peacetime about who would be needed and how long they would serve.

Some degree of voluntarism probably can always be counted upon early in a contingency, especially if people have a chance of being involuntarily recalled to active duty. The Air Force Reserve has said that, based on ODS/S experience, planners could assume that 25 percent of the Air Reserve Component would volunteer for military actions and that this should be accounted for in the deliberate planning process.[3] However, over long contingencies, military planners can expect the number of volunteers to decrease either through less volunteers per se or through a service discouraging volunteers in anticipation of unit call-ups as in ODS/S. And this, too, should be accounted for in the deliberate planning process.

The Period of Presidential Call-up

The extended use of Section 673b accommodated the political situation by providing a restrained, controlled response to political events. Reserve units were available to augment active forces. Priorities of the CINC and the robustness of AC forces influenced how many and what kinds of reserve units were activated. The incremental use of Section 673b constrained military

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[3]Some of the reserve components have proposed establishing special reserve units that are most likely to be required on short notice for military actions. The individuals in those units would be required to agree to service "voluntarily" when needed. Such units are known as "double volunteer" units because they will volunteer in advance to be in a unit that would volunteer in a crisis.

planners and created a situation in which the tension between doctrinal expectations and military need was intensified.

The Reserve Forces Policy Board noted that, "While politically more palatable to involuntarily call up Reservists incrementally in small numbers, this methodology diluted and delayed mobilization potential."[4] Although force planners have long been suspicious that reserve forces might not be available as needed, they persist in planning that assumes a rapid move through the various stages of mobilization. Because the implementation of Section 673b was so unlike the prior plans and training exercises that were largely premised on a global conflict, much confusion resulted prior to deployment. In the Air Force, some inappropriate support structures resulted in SWA. In the Army, some active units were sent in place of reserves and integration as envisioned under the CAPSTONE program did not occur.

The controversy over the ARNG roundout brigades underlined the tensions between competing schools of thought about when to use reserve forces:

1. Should reserve units be activated during a contingency because they are part of the total force? or

2. Should reserve units be activated only when a clear need can be anticipated?

Under the model of call-up used by the Secretary of Defense and Chairman of the Joint Chiefs of Staff ("call as needed"), reserves were only made available as they were needed. This model is congruent with the lessons from past reserve mobilizations, but expectations of many reservists of use in a major contingency were unmet in a less demanding contingency than the global one on which forces had been sized. In future, the military will plan for the most demanding scenario as in the past. If the ODS/S model of calling reserve forces only as needed is continued into the future, reserves may never be used in lesser scenarios no matter their availability or readiness. The issue was not settled by either the Army's decision to call up the three roundout brigades and send them for extensive post-mobilization training or the Air Force's decision to call up a small number of fighter squadrons. The DoD needs to clarify and communicate the basis on which reserve component forces will be used in the future.

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[4]*Reserve Component Programs FY 1991*, Report of the Reserve Forces Policy Board, February 1992, p. xvii.

The Section 673b authority allows the president to augment the active forces with the Selected Reserve without resorting to full, or even partial, mobilization. That has two important effects. It gives the president greater flexibility to use mobilization as an instrument of diplomacy. It is the complement to Total Force Policy: Assuming that the Section 673b call-up authority will be used to meet deployment requirements in major contingencies, planners can feel more comfortable about reducing the size of the active forces and putting more of the emergency capacity in the reserves. And, the current planning paradigm is to assume that needed capability will be provided to the CINC when needed.[5]

The Period of Partial Mobilization in ODS/S

There are two lessons that military planners can learn from the use of partial mobilization as played out during ODS/S. First, the planning model that assumed an early implementation of partial mobilization was incorrect. The late implementation of partial mobilization in ODS/S meant that individual fillers were not available from the IRR for the first five months. This required cross-leveling at home station to obtain individuals with the needed skills. In the future, planners need to account for the possibility that IRR personnel will not be available.

Second, once partial mobilization was invoked, IRR members were available at greater "show" rates than had been expected. The Army particularly called RT-12 from the IRR, and these recently separated personnel should be the focus of explicit plans in the future.[6]

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[5]In discussions on October 9, 1992, the Chairman, JCS, stated that CINCs are now charged to set their requirements and JCS and DoD will fill them. Whether a unit is active or reserve should be transparent in meeting the CINC's requirement—it is a capability that is needed and will be provided. The Joint Strategic Capabilities Plan no longer specifies planning assumptions for decisions on mobilization. Constraints are recognized, but the belief is that the reserve components *will be available* as needed.

[6]Members of the IRR who have recently left active duty are an important source of already trained personnel. They are central to a proposal by John Tillson of the Institute for Defense Analyses concerning the establishment of "Ready Standby Units." See, John Tillson, Merle Roberson, and Stan Horowitz, *Active-Reserve Study*, Institute for Defense Analyses, October 1992.

The Readiness of the Reserve Components Under Total Force Policy

Units of the ANG and AFR, and USAR and ARNG CS/CSS Units Deployed Without Unacceptable Delay

For Army units particularly, transportation availability dominated readiness with regard to deployment date. "The activation and deployment of reserve forces and their full integration into the Active structure were accomplished with no significant problems. . . . Reserve component forces performed to expected standards during ODS/S. . . . For the most part, when reserve forces were activated, their readiness levels were sufficiently high to ensure mission accomplishment with a minimum of post-mobilization training."[7] Pre- and post-mobilization actions and a deployability standard of C-3 made Army reserve component CS/CSS units deployable without unacceptable delay. Readiness of these units was not a detriment to meeting in theater arrival times.

However, the effect of a deployment standard for all Army CS/CSS units higher than the C-3 minimum SORTS standard was not observed in ODS/S although 65 percent of units did meet this criterion at deployment. Both the USMC and the Air Force use a higher standard for all reserve component units and resourced those units in peacetime to achieve the standard readily in war. Further, if the minimum deployment standard for combat units becomes C-1 while the minimum standard for CS/CSS units is C-3, a potential mismatch in capability exists. The effect, if any, is not known. The GAO has concluded, "In our opinion, a clear picture of the ramifications of deploying support units . . . at readiness levels lower than their combat counterparts has not yet emerged."[8]

ARNG Combat Maneuver Brigades Were Not Ready for Deployment When Mobilized

When Secretary Cheney announced the call in November 1990 of the ARNG brigades, he cited the opportunity to train to active component standards that had been raised in the Army to C-1 for combat units. The issue of post-mobilization training to the SORTS C-1 standard against the expected tasks and conditions of the Persian Gulf became dominant for the ARNG brigades.

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[7] DoD, *Conduct of the Persian Gulf War*, pp. H-13, 18, 22.

[8] General Accounting Office, *Operation Desert Storm: Army Had Difficulty Providing Adequate Active and Reserve Support Forces*, NSIAD-92-67, March 1992, p. 41.

Prior to ODS/S and based on SORTS data, 30–40 days of post-mobilization training was expected. However, Army training is based on achievement of standards. Actual training time became a function of need for the unit as well as readiness against training standards as judged by the validating officer. In terms of the actual train up, both the Army IG and the General Accounting Office[9] reached similar conclusions. First, initial training plans were based on unreliable evaluations. Second, individual preparedness affected unit training. Third, deficiencies affected readiness.

Ninety-one days after call, and as the war ended, the 48th Brigade was judged to be combat ready after observation of its performance at the National Training Center. This was an unprecedented achievement, compared to previous mobilization experience, but seemed something less, compared to pre-ODS/S rhetoric and expectation.

While actual train-up time took longer than expected, there are many uncertainties that affect estimates of future train-up time. Among them are the GAO contentions that the lack of objective validation criteria and the many active trainers used in the post-mobilization process make the Persian Gulf experience not generalizable. If validation after mobilization is a useful practice, then clear standards for pre- and post-mobilization training and proficiency against appropriate mission essential tasks are needed. Other variables include deploying the brigades at a C-2 standard (able to accomplish the bulk but not all of their wartime missions) similar to the USAF and USMC; resourcing the brigades at a higher level in peace to accomplish the standard more quickly at mobilization; and training at mobilization under the time pressures of early deployment. As seen in ODS/S, for these and all reserve units, the date of call-up also directly affects the date of deployment.

Analysis of post-mobilization train-up time is central to any decisions about active/reserve mix and is one of the centerpiece tasks for another part of this congressionally mandated study. CAPSTONE alignments, based largely on the global conflict scenario, were generally not followed in ODS/S. The level and logic of directed training associations under the existing CAPSTONE program, such as roundout and roundup, also need evaluation for effectiveness in new scenarios.

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[9]DAIG, *Special Assessment*, and GAO, NSIAD-91-263.

Most Individuals Were Qualified to Perform Assigned Missions and Functions When Deployed

The Air Reserve Component substituted personnel and generally mobilized only those who were qualified and available. Reasons for non-deployability were medical, pregnancy, civilian school, humanitarian, and dependent care. Over 20 percent of all personnel mobilized in the Army reserve components *initially* had an impediment that precluded deployability without correction or a waiver. The vast majority of these were for dental problems, which were either fixed or waived. Medical, primarily over-40 physicals, and skill qualification also limited initial preparedness. Skill mismatch was not a problem at deployment. Where mismatches or shortages existed, they were solved by a combination of filling vacancies with RC volunteers, active personnel, or later with the IRR. Where training was needed, individuals were sent for it or in some cases special training was set up.[10] Since the vast majority of personnel mobilized were in Army CS/CSS units and since little collective training was accomplished in these units prior to deployment, emphasis could be given to making individuals ready. Their deficiencies did not deter the units. This was not the case in the ARNG combat maneuver brigades where correcting individual deficiencies did slow down unit collective training.

Generally, during ODS/S any lack of individual preparedness did not detract from overall readiness; for the most part, individuals were ready when the unit deployed. However, this conclusion should be tempered by three facts. The first is that a tremendous amount of effort was made to ensure individuals were deployable prior to call. The incremental call-up and the robust reserves allowed this to occur. Smaller future forces or more rapid deployment might impede this flexibility. The second is that, because of lift constraints, units remained at mobilization stations beyond the time needed to reach unit deployment and readiness standards, which allowed added time for correcting individual deployability problems. There are no data to determine the significance of this added time for improving individual deployability. The third is that access to the IRR did not occur until January. Earlier access would have allowed "more" ready individuals, particularly in skill qualification, to be assigned to called units.

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[10]HASC discussions.

Reforms Might Improve Readiness, But . . .

There have been two reasons why solutions to reserve readiness problems in the Army, particularly, have been difficult to achieve: (1) the lack of resources and (2) inconsistencies with the limited time that reservists are able to devote to military training. While many good ideas have come out of the ODS/S experience, there was no shortage of good ideas before the Persian Gulf Conflict. History cautions us not to assume that just because a proposal has been made, improvements will follow quickly, or ever follow.

Reforms would only be expected to have a marginal improvement on the readiness of the Air Reserve Component and Army reserve component CS/CSS units *as seen in ODS/S.* The question of "reform" for units that met their deployment dates in ODS/S may be moot *except under changed assumptions in the future, such as the need to deploy sooner or at higher standards or given less robust overall active and reserve forces.* However, reforms could lead to significant improvement for Army reserve component combat forces under any assumptions to include those of ODS/S. The range for improvement seems much larger, especially under the condition that these units must improve to a C-1 SORTS standard before deployment. Given the expected length of time to accomplish this, there is greater opportunity to gain meaningful time savings. The effect of reform, given new illustrative planning scenarios and changed conditions, needs to be considered.

How Effective Was Total Force Policy in the Persian Gulf Conflict?

Our evaluation asked two critical questions: Did Total Force Policy make the numbers and types of reserve forces needed in ODS/S *available* to the National Command Authority? Were those forces *ready* to carry out their assigned missions? Under Total Force Policy, the reserve forces are intended to be available and ready as the initial and primary augmentation of the active forces in any contingency. Judged by these criteria, Total Force Policy, while not without some problems and not without some controversy, was effective in the Persian Gulf Conflict.